

z/OS  
3.2

*MVS Data Areas Volume 2 (IAX - ISG)*



**Note**

Before using this information and the product it supports, read the information in [“Notices” on page 1575](#).

This edition applies to IBM® z/OS® 3.2 (5655-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

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## How to provide feedback to IBM

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We welcome any feedback that you have, including comments on the clarity, accuracy, or completeness of the information. For more information, see [How to send feedback to IBM](#).



# Chapter 1. MVS Data Areas (IAX - ISG)

This topic describes the MVS data areas that are prefixed with IAX - ISG.

## IAXCNTPL information

### IAXCNTPL heading information

<b>Common name:</b>	RSM Frame Count Service Parameter List
<b>Macro ID:</b>	IAXCNTPL
<b>DSECT name:</b>	None
<b>Owning component:</b>	Real Storage Manager (SC1CR)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Virtual Storage: Yes Auxiliary Storage: No Subpool: User specified Key: Any, but must agree with input save area, parm list, and work area. AMODE = 31 LOCKS HELD = None required ASC MODE = Primary or Secondary ADDRESS SPACE = Irrelevant MEMORY MODE = XMEM   non-XMEM DISPATCH MODE = Task   SRB Data Space: No Residency: User specified
<b>Size:</b>	48 bytes
<b>Created by:</b>	CALLER INITIALIZED BY = CALLER DESTROYED BY = CALLER
<b>Pointed to by:</b>	Register 1 (request to IAXXC)
<b>Serialization:</b>	PROVIDED BY CALLER
<b>Function:</b>	Contains input and output information for the request to IAXXC to obtain the frame count

### IAXCNTPL mapping

Table 1. Structure PARMS\_NTF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	48	PARMS_NTF	Parm list for IARXCNTF
0	(0)	ADDRESS	4	NTFWORKA	Address of input work area
4	(4)	BITSTRING	4	FLAGS	Flags word
		1... ....		SWAP_FLAG	Address space swapped in/out indicator (not meaningful if this request was for common). 0 = swapped in 1 = swapped out

Table 1. Structure PARMS\_NTF (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1... ....		NEW_PLIST	1 = New Parm list which contains FIXED_ABOVE is used 0 = Old Parm list is used
4	(4)	BITSTRING	3	*	Reserved
8	(8)	SIGNED	4	FXED	The total number of fixed frames owned by the address space or page- fixed pages if this is common
12	(C)	SIGNED	4	FIXED_BEL	Of the total fixed frames indicated in FXED field, the number of frames located below 16MB real storage
16	(10)	SIGNED	4	FIXED_LSQA	Of the total fixed frames indicated in FXED field, the number of frames backing LSQA pages (will be zero for common)
20	(14)	SIGNED	4	DREF	The total amount of processor storage (frames) backing LSQA DREF and data space DREF storage (SQA-DREF if request is for common)
24	(18)	SIGNED	4	DREF_REAL	Of the total indicated in DREF field the number of real storage frames backing LSQA DREF and data space DREF storage (SQA DREF for common)
28	(1C)	SIGNED	4	CSA	The total amount of processor storage (frames) backing CSA pages. It is only meaningful for common and not meaningful for address spaces
32	(20)	SIGNED	4	FIXED_ABOVE	Of the total fixed frames indicated in FXED field, the number of frames located between 16MB and 2G real storage
36	(24)	SIGNED	4	LARGEPAGESBACKEDINREAL	Number of large page frames (1MB page frames) owned by this address space that are backed in real
40	(28)	SIGNED	4	TWOGIGPAGESBACKEDINREAL	Number of 2G page frames owned by this address space that are backed in real
44	(2C)	CHARACTER	4	CNTRSV	Reserved

Table 2. Constants for IAXCNTPL

Len	Type	Value	Name	Description
4	DECIMAL	128	NTFWORKA_SIZE	Size of the input workarea needed by the frame count service routine

Table 3. Cross Reference for IAXCNTPL

Name	Offset	Hex Tag
CNTRSV	2C	
CSA	1C	
DREF	14	
DREF_REAL	18	
FIXED_ABOVE	20	
FIXED_BEL	C	
FIXED_LSQA	10	
FLAGS	4	
FXED	8	



Table 3. Cross Reference for IAXCNTPL (continued)

Name	Offset	Hex Tag
LARGEPAGESBACKEDINREAL	24	
NEW_PLIST	4	40
NTFWORKA	0	
PARMS_NTF	0	
SWAP_FLAG	4	80
TWOGIGPAGESBACKEDINREAL	28	

## IAXCPHA information

### IAXCPHA heading information

**Common name:** RSM Cell Pool Header Authorized Section

**Macro ID:** IAXCPHA

**DSECT name:** CPHA

**Owning component:** REAL STORAGE MANAGER (SC1CR)

**Eye-catcher ID:** CPHA  
Offset: 0  
Length: 4 bytes

**Storage attributes:** Virtual Storage: YES  
Subpool: CPHA for private cell pools - subpool 213 on the  
the tasks that owns the pool.  
Key: 0  
Data Space: NO  
Residency: Above the line for private  
Above the bar for private

**Size:** ??? bytes

**Created by:** IARCYBLD

**Pointed to by:** CPHDCPHA - Connection for the cell pool to use in expand  
and delete processing

**Serialization:** CDSG is used to update queue headers.

**Function:** The CPHA contains any cell pool information that we don't  
want the user to be able to modify.  
It also contains the anchor to the chain of extents.  
The CPHA contains the IARV64 parameter list used to create  
the initial and subsequent extents.  
The CPHA resides in key 0 storage to prevent the user from  
changing the attributes for a pool extent.

### IAXCPHA mapping

Table 4. Structure CPHA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	304	CPHA	

Table 4. Structure CPHA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	4	CPHAID	CPHA control block identifier
4	(4)	CHARACTER	1	CPHASP	Subpool for private CPHA
5	(5)	BITSTRING	1	CPHAFLG1	Flag byte 1
		1... ....		CPHAF1FIXED	Cells in this pool are page fixed.
		.1... ....		CPHAF1TRY1MPAGESIZE	Try to get 1M pages for this pool.
		..1. ....		CPHAF1ST64	This pool services IARST64. Reject IARCP64 DELETE requests which point to this CPHA.
		...1 ....		CPHALOCSYSA	This pool was created with LOCALSYSAREA parm
		.... 1...		CPHA_MULTIHDR	This pool is a multi-header pool
		.... .1..		CPHA_FIRSTOFMULTIHDR	First CPHA of a multi-header pool
6	(6)	BITSTRING	1	CPHAKEY	Key of the pool in top 4 bits
7	(7)	CHARACTER	1	CPHARSV1	Reserved
8	(8)	UNSIGNED	4	CPHAPAGEFIXCAEMASK	CA mask used to determine when to invoke IAXCY to page fix additional areas within the extent. Only applicable to fixed extents
12	(C)	ADDRESS	4	CPHANEXT	Address of the next CPHA. This is only used for private area CPHAs for user key pools. This allows the fork exit to locate CPHAs that need to be propagated to the child and is also used to validate the CPHA on expand. SERIALIZATION: Local Lock
QUADWORDS 2/3					
16	(10)	CHARACTER	24	CPHAUSERDATA	Caller provided test string to make it easy to spot cell pool extents in a dump.
40	(28)	CHARACTER	8	CPHARSV2	Reserved
QUADWORD 4					
48	(30)	CHARACTER	8	CPHAUSERTKN	User token returned by RSM on initial IARV64 GETxx and provided on subsequent requests (unused, remove)
56	(38)	ADDRESS	8	CPHACPHD	Address of CPHD. Used to verify that the user has not modified the CPHD.
QUADWORD 5					
64	(40)	UNSIGNED	4	CPHACELLSZREQ	Cell size requested on the build.
68	(44)	UNSIGNED	4	CPHACELLSIZE	Size of the cells in this pool. This is the size after the build routine has rounded the user's request to the appropriate boundary.
72	(48)	UNSIGNED	4	*	
72	(48)	UNSIGNED	1	CPHANUMCAEPAGESTOFIX	Number of pages mapping the control area to page fix
73	(49)	UNSIGNED	1	CPHANUMCELLPAGESTOFIX	Number of pages mapping cells to page fix
74	(4A)	SIGNED	2	CPHA_CPUPA	For Multiheader cpoools, the physical CPU address associated w/ this pool. See PSACPUPA
76	(4C)	UNSIGNED	4	CPHACELLSZ	Size of cell area

Table 4. Structure CPHA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
QUADWORD 6					
80	(50)	CHARACTER	16	CPHARSV3	Reserved
QUADWORD 7 Quadword alignment is required for the following anchors since they are updated with CDSG.					
96	(60)	CHARACTER	16	CPHAEXT	Pointer to the extent chain. Serialization: CDSG with an incremented sequence number.
96	(60)	ADDRESS	8	CPHAEXTANC	Pointer to the last extent to be added to the pool. or zero if the pool has never been expanded.
104	(68)	UNSIGNED	8	CPHAEXTSEQ	Sequence number for the CDSG to update.
QUADWORD 8					
112	(70)	CHARACTER	16	CPHARSV4	Reserved
QUADWORD 9					
128	(80)	CHARACTER	176	CPHAV64PL	Parameter list used to get extents with IARV64

Table 5. Structure CPHAB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	176	CPHAB	?IARV64 PARM LIST
0	(0)	UNSIGNED	1	CPHAB_XVERSION	INPUT XVERSION
1	(1)	UNSIGNED	1	CPHAB_XREQUEST	XREQUEST
2	(2)	BITSTRING	1	CPHAB_XFLAGS0	FIELD_LABEL
		1... ....		CPHAB_XMOTKNSOURCE_SYSTEM	BIT
		.1.. ....		CPHAB_XMOTKNCREATOR_SYSTEM	BIT
		..1. ....		CPHAB_XMATCH_MOTOKEN	BIT
		...1 1111		CPHAB_XFLAGS0_RSVD1	BIT
3	(3)	UNSIGNED	1	CPHAB_XKEY	XKEY
4	(4)	BITSTRING	1	CPHAB_XFLAGS1	FIELD_LABEL
		1... ....		CPHAB_KEYUSED_KEY	BIT
		.1.. ....		CPHAB_KEYUSED_USERTKN	BIT
		..1. ....		CPHAB_KEYUSED_TTOKEN	BIT
		...1 ....		CPHAB_KEYUSED_CONVERTSTART	BIT
		.... 1...		CPHAB_KEYUSED_GUARDSIZE64	BIT
		.... .1..		CPHAB_KEYUSED_CONVERTSIZE64	BIT
		.... ..1.		CPHAB_KEYUSED_MOTKN	BIT
		.... ...1		CPHAB_KEYUSED_OWNERJOBNAME	BIT
5	(5)	BITSTRING	1	CPHAB_XFLAGS2	FIELD_LABEL
		1... ....		CPHAB_XCOND_YES	BIT

Table 5. Structure CPHAB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		CPHAB_XFPROT_NO	BIT
		..1. ....		CPHAB_XCONTROL_AUTH	BIT
		...1 ....		CPHAB_XGUARDLOC_HIGH	BIT
		.... 1...		CPHAB_XCHANGEACCESS_GLOBAL	BIT
		.... .1..		CPHAB_XPAGEFRAMESIZE_1MEG	BIT
		.... ..1.		CPHAB_XPAGEFRAMESIZE_MAX	BIT
		.... ...1		CPHAB_XPAGEFRAMESIZE_ALL	BIT
6	(6)	BITSTRING	1	CPHAB_XFLAGS3	FIELD_LABEL
		1... ....		CPHAB_XMATCH_USERTOKEN	BIT
		.1.. ....		CPHAB_XAFFINITY_SYSTEM	BIT
		..1. ....		CPHAB_XUSE2GT032G_YES	BIT
		...1 ....		CPHAB_XOWNER_NO	BIT
		.... 1...		CPHAB_XV64SELECT_NO	BIT
		.... .1..		CPHAB_XSVCDUMPRGN_NO	BIT
		.... ..1.		CPHAB_XV64SHARED_NO	BIT
		.... ...1		CPHAB_XSVCDUMPRGN_ALL	BIT
7	(7)	BITSTRING	1	CPHAB_XFLAGS4	FIELD_LABEL
		1... ....		CPHAB_XLONG_NO	BIT
		.1.. ....		CPHAB_XCLEAR_NO	BIT
		..1. ....		CPHAB_XVIEW_READONLY	BIT
		...1 ....		CPHAB_XVIEW_SHAREDWRITE	BIT
		.... 1...		CPHAB_XVIEW_HIDDEN	BIT
		.... .1..		CPHAB_XCONVERT_TOGUARD	BIT
		.... ..1.		CPHAB_XCONVERT_FROMGUARD	BIT
		.... ...1		CPHAB_XKEEPREAL_NO	BIT
8	(8)	UNSIGNED	8	CPHAB_XSEGMENTS	XSEGMENTS
16	(10)	CHARACTER	16	CPHAB_XTTOKEN	XTTOKEN
32	(20)	UNSIGNED	8	CPHAB_XUSERTKN	XUSERTKN
40	(28)	ADDRESS	8	CPHAB_XORIGIN	XORIGIN
48	(30)	ADDRESS	8	CPHAB_XRANGLIST	XRANGLIST
56	(38)	ADDRESS	8	CPHAB_XMEMOBJSTART	XMEMOBJSTART
64	(40)	UNSIGNED	4	CPHAB_XGUARDSIZE	XGUARDSIZE
68	(44)	UNSIGNED	4	CPHAB_XCONVERTSIZE	XCONVERTSIZE
72	(48)	UNSIGNED	4	CPHAB_XALETVALUE	XALETVALUE
76	(4C)	SIGNED	4	CPHAB_XNUMRANGE	XNUMRANGE
80	(50)	ADDRESS	4	CPHAB_XV64LISTPTR	XV64LISTPTR
84	(54)	UNSIGNED	4	CPHAB_XV64LISTLENGTH	XV64LISTLENGTH
88	(58)	UNSIGNED	8	CPHAB_XCONVERTSTART	XCONVERTSTART
96	(60)	UNSIGNED	8	CPHAB_XCONVERTSIZE64	XCONVERTSIZE64
104	(68)	UNSIGNED	8	CPHAB_XGUARDSIZE64	XGUARDSIZE64
112	(70)	CHARACTER	8	CPHAB_XUSERTOKEN	XUSERTOKEN
120	(78)	UNSIGNED	1	CPHAB_XDUMPPRIORITY	XDUMPPRIORITY
121	(79)	BITSTRING	1	CPHAB_XFLAGS5	FIELD_LABEL
		1... ....		CPHAB_XDUMPPROTOCOL_YES	BIT

Table 5. Structure CPHAB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		CPHAB_XORDER_DUMPRIORITY	BIT
		..1. ....		CPHAB_XTYPE_PAGEABLE	BIT
		...1 ....		CPHAB_XTYPE_DREF	BIT
		.... 1...		CPHAB_XOWNERCOM_HOME	BIT
		.... .1..		CPHAB_XOWNERCOM_PRIMARY	BIT
		.... ..1.		CPHAB_XOWNERCOM_SYSTEM	BIT
		.... ...1		CPHAB_XOWNERCOM_BYASID	BIT
122	(7A)	BITSTRING	1	CPHAB_XFLAGS6	FIELD_LABEL
		1... ....		CPHAB_XV64COMMON_NO	BIT
		.1.. ....		CPHAB_XMEMLIMIT_NO	BIT
		..1. ....		CPHAB_XDETACHFIXED_YES	BIT
		...1 ....		CPHAB_XDOAUTHCHECKS_YES	BIT
		.... 1...		CPHAB_XLOCALSYSAREA_YES	BIT
		.... .1..		CPHAB_XAMOUNTSIZE_4K	BIT
		.... ..1.		CPHAB_XAMOUNTSIZE_1MEG	BIT
		.... ...1		CPHAB_XMEMLIMIT_COND	BIT
123	(7B)	BITSTRING	1	CPHAB_XFLAGS7	FIELD_LABEL
		1... ....		CPHAB_KEYUSED_DUMP	BIT
		.1.. ....		CPHAB_KEYUSED_OPTIONVALUE	BIT
		..1. ....		CPHAB_KEYUSED_SVCDUMPRGN	BIT
		...1 ....		CPHAB_XATTRIBUTE_DEFS	BIT
		.... 1...		CPHAB_XATTRIBUTE_OWNERGONE	BIT
		.... ..1..		CPHAB_XATTRIBUTE_NOTOWNERGONE	BIT
		.... ...1.		CPHAB_XTRACKINFO_YES	BIT
		.... ...1		CPHAB_XUNLOCKED_YES	BIT
124	(7C)	UNSIGNED	1	CPHAB_XDUMP	XDUMP
125	(7D)	BITSTRING	1	CPHAB_XFLAGS8	FIELD_LABEL
		1... ....		CPHAB_XPAGEFRAME_SIZE_PAGEABLE1MEG	BIT
		.1.. ....		CPHAB_XPAGEFRAME_SIZE_DREF1MEG	BIT
		..1. ....		CPHAB_XSADMP_YES	BIT
		...1 ....		CPHAB_XSADMP_NO	BIT
		.... 1...		CPHAB_XUSE2GT064G_YES	BIT
		.... .1..		CPHAB_XDISCARDPAGES_YES	BIT
		.... ..1.		CPHAB_XEXECUTABLE_YES	BIT
		.... ...1		CPHAB_XEXECUTABLE_NO	BIT
126	(7E)	UNSIGNED	2	CPHAB_XOWNERASID	XOWNERASID
128	(80)	UNSIGNED	1	CPHAB_XOPTIONVALUE	XOPTIONVALUE
129	(81)	CHARACTER	8	CPHAB_XRSV0001	RESERVED
137	(89)	CHARACTER	8	CPHAB_XOWNERJOBNAME	XOWNERJOBNAME
145	(91)	CHARACTER	7	CPHAB_XRSV0004	RESERVED
152	(98)	ADDRESS	8	CPHAB_XDMAPAGETABLE	XDMAPAGETABLE

Table 5. Structure CPHAB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
160	(A0)	UNSIGNED	8	CPHAB_XUNITS	XUNITS
168	(A8)	BITSTRING	1	CPHAB_XFLAGS9	FIELD_LABEL
		1... ....		CPHAB_KEYUSED_UNITS	BIT
		.1.. ....		CPHAB_XUNITSIZE_1M	BIT
		..1. ....		CPHAB_XUNITSIZE_2G	BIT
		...1 ....		CPHAB_XPAGEFRAMESIZE_1M	BIT
		.... 1...		CPHAB_XPAGEFRAMESIZE_2G	BIT
		.... .1..		CPHAB_XTYPE_FIXED	BIT
		.... ..11		CPHAB_XFLAGS9_RSVD1	BIT
169	(A9)	BITSTRING	1	CPHAB_XFLAGS10	FIELD_LABEL
		1... ....		CPHAB_KEYUSED_INORIGIN	BIT
		.1.. ....		CPHAB_XSENSITIVE_YES	BIT
		..1. ....		CPHAB_XSENSITIVE_NO	BIT
		...1 ....		CPHAB_KEYUSED_SENSITIVE	BIT
		.... 1111		CPHAB_XFLAGS10_RSVD1	BIT
170	(AA)	BITSTRING	1	CPHAB_XFLAGS11	FIELD_LABEL
		1... ....		CPHAB_KEYUSED_OBJECTTYPE	BIT
		.1.. ....		CPHAB_XOBJECTTYPE_POOL	BIT
		..1. ....		CPHAB_XOBJECTTYPE_RSMINTERNAL	BIT
		...1 1111		CPHAB_XFLAGS11_RSVD1	BIT
171	(AB)	CHARACTER	5	CPHAB_XRSV0005	RESERVED

Table 6. Structure @NM00002

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	STRUCTURE	8	*	DEFINED
32	(20)	UNSIGNED	8	CPHAB_XOUTMOTKN	XOUTMOTKN

Table 7. Structure @NM00003

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	STRUCTURE	8	*	DEFINED
32	(20)	UNSIGNED	8	CPHAB_XMOTKN	XMOTKN

Table 8. Structure @NM00004

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
56	(38)	STRUCTURE	8	*	DEFINED
56	(38)	ADDRESS	8	CPHAB_XINORIGIN	XINORIGIN

Table 9. Structure @NM00005

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
56	(38)	STRUCTURE	8	*	DEFINED
56	(38)	ADDRESS	8	CPHAB_XINADDR	XINADDR
64	(40)	CHARACTER	0	*	

Table 10. Structure CPHAP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
128	(80)	STRUCTURE	176	CPHAP	?IARV64 PARM LIST
128	(80)	UNSIGNED	1	CPHAP_XVERSION	INPUT XVERSION
129	(81)	UNSIGNED	1	CPHAP_XREQUEST	XREQUEST
130	(82)	BITSTRING	1	CPHAP_XFLAGS0	FIELD_LABEL
		1... ....		CPHAP_XMOTKNSOURCE_SYSTEM	BIT
		.1.. ....		CPHAP_XMOTKNCREATOR_SYSTEM	BIT
					BIT
		..1. ....		CPHAP_XMATCH_MOTOKEN	BIT
		...1 1111		CPHAP_XFLAGS0_RSVD1	BIT
131	(83)	UNSIGNED	1	CPHAP_XKEY	XKEY
132	(84)	BITSTRING	1	CPHAP_XFLAGS1	FIELD_LABEL
		1... ....		CPHAP_KEYUSED_KEY	BIT
		.1.. ....		CPHAP_KEYUSED_USERTKN	BIT
		..1. ....		CPHAP_KEYUSED_TTOKEN	BIT
		...1 ....		CPHAP_KEYUSED_CONVERTSTART	BIT
					BIT
		.... 1...		CPHAP_KEYUSED_GUARDSIZE64	BIT
		.... .1..		CPHAP_KEYUSED_CONVERTSIZE64	BIT
					BIT
		.... ..1.		CPHAP_KEYUSED_MOTKN	BIT
		.... ...1		CPHAP_KEYUSED_OWNERJOBNAME	BIT
133	(85)	BITSTRING	1	CPHAP_XFLAGS2	FIELD_LABEL
		1... ....		CPHAP_XCOND_YES	BIT
		.1.. ....		CPHAP_XFPROT_NO	BIT
		..1. ....		CPHAP_XCONTROL_AUTH	BIT
		...1 ....		CPHAP_XGUARDLOC_HIGH	BIT
		.... 1...		CPHAP_XCHANGEACCESS_GLOBAL	BIT
					BIT
		.... .1..		CPHAP_XPAGEFRAMESIZE_1MEG	BIT
		.... ..1.		CPHAP_XPAGEFRAMESIZE_MAX	BIT
		.... ...1		CPHAP_XPAGEFRAMESIZE_ALL	BIT
134	(86)	BITSTRING	1	CPHAP_XFLAGS3	FIELD_LABEL
		1... ....		CPHAP_XMATCH_USERTOKEN	BIT
		.1.. ....		CPHAP_XAFFINITY_SYSTEM	BIT
		..1. ....		CPHAP_XUSE2GT032G_YES	BIT
		...1 ....		CPHAP_XOWNER_NO	BIT
		.... 1...		CPHAP_XV64SELECT_NO	BIT
		.... .1..		CPHAP_XSVCDUMPRGN_NO	BIT
		.... ..1.		CPHAP_XV64SHARED_NO	BIT
		.... ...1		CPHAP_XSVCDUMPRGN_ALL	BIT
135	(87)	BITSTRING	1	CPHAP_XFLAGS4	FIELD_LABEL
		1... ....		CPHAP_XLONG_NO	BIT
		.1.. ....		CPHAP_XCLEAR_NO	BIT
		..1. ....		CPHAP_XVIEW_READONLY	BIT

Table 10. Structure CPHAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		CPHAP_XVIEW_SHAREDWRITE	BIT
		.... 1...		CPHAP_XVIEW_HIDDEN	BIT
		.... .1..		CPHAP_XCONVERT_TOGUARD	BIT
		.... ..1.		CPHAP_XCONVERT_FROMGUARD	BIT
		.... ...1		CPHAP_XKEEPREAL_NO	BIT
136	(88)	UNSIGNED	8	CPHAP_XSEGMENTS	XSEGMENTS
144	(90)	CHARACTER	16	CPHAP_XTTOKEN	XTTOKEN
160	(A0)	UNSIGNED	8	CPHAP_XUSERTKN	XUSERTKN
168	(A8)	ADDRESS	8	CPHAP_XORIGIN	XORIGIN
176	(B0)	ADDRESS	8	CPHAP_XRANGLIST	XRANGLIST
184	(B8)	ADDRESS	8	CPHAP_XMEMOBJSTART	XMEMOBJSTART
192	(C0)	UNSIGNED	4	CPHAP_XGUARDSIZE	XGUARDSIZE
196	(C4)	UNSIGNED	4	CPHAP_XCONVERTSIZE	XCONVERTSIZE
200	(C8)	UNSIGNED	4	CPHAP_XALETVALUE	XALETVALUE
204	(CC)	SIGNED	4	CPHAP_XNUMRANGE	XNUMRANGE
208	(D0)	ADDRESS	4	CPHAP_XV64LISTPTR	XV64LISTPTR
212	(D4)	UNSIGNED	4	CPHAP_XV64LISTLENGTH	XV64LISTLENGTH
216	(D8)	UNSIGNED	8	CPHAP_XCONVERTSTART	XCONVERTSTART
224	(E0)	UNSIGNED	8	CPHAP_XCONVERTSIZE64	XCONVERTSIZE64
232	(E8)	UNSIGNED	8	CPHAP_XGUARDSIZE64	XGUARDSIZE64
240	(F0)	CHARACTER	8	CPHAP_XUSERTOKEN	XUSERTOKEN
248	(F8)	UNSIGNED	1	CPHAP_XDUMPPRIORITY	XDUMPPRIORITY
249	(F9)	BITSTRING	1	CPHAP_XFLAGS5	FIELD_LABEL
		1... ....		CPHAP_XDUMPPROTOCOL_YES	BIT
		.1.. ....		CPHAP_XORDER_DUMPPRIORITY	BIT
		..1. ....		CPHAP_XTYPE_PAGEABLE	BIT
		...1 ....		CPHAP_XTYPE_DREF	BIT
		.... 1...		CPHAP_XOWNERCOM_HOME	BIT
		.... .1..		CPHAP_XOWNERCOM_PRIMARY	BIT
		.... ..1.		CPHAP_XOWNERCOM_SYSTEM	BIT
		.... ...1		CPHAP_XOWNERCOM_BYASID	BIT
250	(FA)	BITSTRING	1	CPHAP_XFLAGS6	FIELD_LABEL
		1... ....		CPHAP_XV64COMMON_NO	BIT
		.1.. ....		CPHAP_XMEMLIMIT_NO	BIT
		..1. ....		CPHAP_XDETACHFIXED_YES	BIT
		...1 ....		CPHAP_XDOAUTHCHECKS_YES	BIT
		.... 1...		CPHAP_XLOCALSYSAREA_YES	BIT
		.... .1..		CPHAP_XAMOUNTSIZE_4K	BIT
		.... ..1.		CPHAP_XAMOUNTSIZE_1MEG	BIT
		.... ...1		CPHAP_XMEMLIMIT_COND	BIT
251	(FB)	BITSTRING	1	CPHAP_XFLAGS7	FIELD_LABEL
		1... ....		CPHAP_KEYUSED_DUMP	BIT
		.1.. ....		CPHAP_KEYUSED_OPTIONVALUE	BIT
		..1. ....		CPHAP_KEYUSED_SVCDUMPRGN	BIT
		...1 ....		CPHAP_XATTRIBUTE_DEFS	BIT



Table 10. Structure CPHAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		CPHAP_XATTRIBUTE_OWNERGONE	BIT
		.... .1..		CPHAP_XATTRIBUTE_NOTOWNERGONE	BIT
		.... ..1.		CPHAP_XTRACKINFO_YES	BIT
		.... ...1		CPHAP_XUNLOCKED_YES	BIT
252	(FC)	UNSIGNED	1	CPHAP_XDUMP	XDUMP
253	(FD)	BITSTRING	1	CPHAP_XFLAGS8	FIELD_LABEL
		1... ....		CPHAP_XPAGEFRAMESIZE_PAGEABLE1MEG	BIT
		.1.. ....		CPHAP_XPAGEFRAMESIZE_DREF1MEG	BIT
		..1. ....		CPHAP_XSADMP_YES	BIT
		...1 ....		CPHAP_XSADMP_NO	BIT
		.... 1...		CPHAP_XUSE2GT064G_YES	BIT
		.... .1..		CPHAP_XDISCARDPAGES_YES	BIT
		.... ..1.		CPHAP_XEXECUTABLE_YES	BIT
		.... ...1		CPHAP_XEXECUTABLE_NO	BIT
254	(FE)	UNSIGNED	2	CPHAP_XOWNERASID	XOWNERASID
256	(100)	UNSIGNED	1	CPHAP_XOPTIONVALUE	XOPTIONVALUE
257	(101)	CHARACTER	8	CPHAP_XRSV0001	RESERVED
265	(109)	CHARACTER	8	CPHAP_XOWNERJOBNAME	XOWNERJOBNAME
273	(111)	CHARACTER	7	CPHAP_XRSV0004	RESERVED
280	(118)	ADDRESS	8	CPHAP_XDMAPAGETABLE	XDMAPAGETABLE
288	(120)	UNSIGNED	8	CPHAP_XUNITS	XUNITS
296	(128)	BITSTRING	1	CPHAP_XFLAGS9	FIELD_LABEL
		1... ....		CPHAP_KEYUSED_UNITS	BIT
		.1.. ....		CPHAP_XUNITSIZE_1M	BIT
		..1. ....		CPHAP_XUNITSIZE_2G	BIT
		...1 ....		CPHAP_XPAGEFRAMESIZE_1M	BIT
		.... 1...		CPHAP_XPAGEFRAMESIZE_2G	BIT
		.... .1..		CPHAP_XTYPE_FIXED	BIT
		.... ..11		CPHAP_XFLAGS9_RSVD1	BIT
297	(129)	BITSTRING	1	CPHAP_XFLAGS10	FIELD_LABEL
		1... ....		CPHAP_KEYUSED_INORIGIN	BIT
		.1.. ....		CPHAP_XSENSITIVE_YES	BIT
		..1. ....		CPHAP_XSENSITIVE_NO	BIT
		...1 ....		CPHAP_KEYUSED_SENSITIVE	BIT
		.... 1111		CPHAP_XFLAGS10_RSVD1	BIT
298	(12A)	BITSTRING	1	CPHAP_XFLAGS11	FIELD_LABEL
		1... ....		CPHAP_KEYUSED_OBJECTTYPE	BIT
		.1.. ....		CPHAP_XOBJECTTYPE_POOL	BIT
		..1. ....		CPHAP_XOBJECTTYPE_RSMINTERNAL	BIT
		...1 1111		CPHAP_XFLAGS11_RSVD1	BIT

Table 10. Structure CPHAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
299	(12B)	CHARACTER	5	CPHAP_XRSV0005	RESERVED

Table 11. Structure @NM00007

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
160	(A0)	STRUCTURE	8 *		DEFINED
160	(A0)	UNSIGNED	8	CPHAP_XOUTMOTKN	XOUTMOTKN

Table 12. Structure @NM00008

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
160	(A0)	STRUCTURE	8 *		DEFINED
160	(A0)	UNSIGNED	8	CPHAP_XMOTKN	XMOTKN

Table 13. Structure @NM00009

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
184	(B8)	STRUCTURE	8 *		DEFINED
184	(B8)	ADDRESS	8	CPHAP_XINORIGIN	XINORIGIN

Table 14. Structure @NM00010

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
184	(B8)	STRUCTURE	8 *		DEFINED
184	(B8)	ADDRESS	8	CPHAP_XINADDR	XINADDR
192	(C0)	CHARACTER	0 *		

Table 15. Structure @NM00012

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
144	(90)	STRUCTURE	16 *		
144	(90)	CHARACTER	12 *		
156	(9C)	CHARACTER	4	CPHAPTCBFROMTTOKEN	TCB that owns MO

Table 16. Constants for IAXCPHA

Len	Type	Value	Name	Description
1	DECIMAL	1	CPHAB_XREQUEST_GETSTOR	XREQUEST
1	DECIMAL	2	CPHAB_XREQUEST_GETSHARED	XREQUEST
1	DECIMAL	3	CPHAB_XREQUEST_DETACH	XREQUEST
1	DECIMAL	4	CPHAB_XREQUEST_PAGEFIX	XREQUEST
1	DECIMAL	5	CPHAB_XREQUEST_PAGEUNFIX	XREQUEST
1	DECIMAL	6	CPHAB_XREQUEST_PAGEOUT	XREQUEST
1	DECIMAL	7	CPHAB_XREQUEST_DISCARDATA	XREQUEST
1	DECIMAL	8	CPHAB_XREQUEST_PAGEIN	XREQUEST
1	DECIMAL	9	CPHAB_XREQUEST_PROTECT	XREQUEST
1	DECIMAL	10	CPHAB_XREQUEST_SHAREMEMOBJ	XREQUEST
1	DECIMAL	11	CPHAB_XREQUEST_CHANGEACCESS	XREQUEST
1	DECIMAL	12	CPHAB_XREQUEST_UNPROTECT	XREQUEST

Table 16. Constants for IAXCPHA (continued)

Len	Type	Value	Name	Description
1	DECIMAL	13	CPHAB_XREQUEST_CHANGE_GUARD	XREQUEST
1	DECIMAL	14	CPHAB_XREQUEST_LIST	XREQUEST
1	DECIMAL	15	CPHAB_XREQUEST_GETCOMMON	XREQUEST
1	DECIMAL	16	CPHAB_XREQUEST_COUNTPAGES	XREQUEST
1	DECIMAL	17	CPHAB_XREQUEST_PCIEFIX	XREQUEST
1	DECIMAL	18	CPHAB_XREQUEST_PCIEUNFIX	XREQUEST
1	DECIMAL	19	CPHAB_XREQUEST_CHANGEATTRIBUTE	XREQUEST
1	DECIMAL	0	CPHAB_XDUMP_NONE	XDUMP
1	DECIMAL	1	CPHAB_XDUMP_NO	XDUMP
1	DECIMAL	2	CPHAB_XDUMP_LIKESQA	XDUMP
1	DECIMAL	3	CPHAB_XDUMP_LIKECSA	XDUMP
1	DECIMAL	32	CPHAB_XDUMP_LIKERGN	XDUMP
1	DECIMAL	33	CPHAB_XDUMP_LIKELSQA	XDUMP
1	DECIMAL	255	CPHAB_XDUMP_ALL	XDUMP Needed for parm length
1	DECIMAL	1	CPHAP_XREQUEST_GETSTOR	XREQUEST
1	DECIMAL	2	CPHAP_XREQUEST_GETSHARED	XREQUEST
1	DECIMAL	3	CPHAP_XREQUEST_DETACH	XREQUEST
1	DECIMAL	4	CPHAP_XREQUEST_PAGEFIX	XREQUEST
1	DECIMAL	5	CPHAP_XREQUEST_PAGEUNFIX	XREQUEST
1	DECIMAL	6	CPHAP_XREQUEST_PAGEOUT	XREQUEST
1	DECIMAL	7	CPHAP_XREQUEST_DISCARDATA	XREQUEST
1	DECIMAL	8	CPHAP_XREQUEST_PAGEIN	XREQUEST
1	DECIMAL	9	CPHAP_XREQUEST_PROTECT	XREQUEST
1	DECIMAL	10	CPHAP_XREQUEST_SHAREMEMOBJ	XREQUEST
1	DECIMAL	11	CPHAP_XREQUEST_CHANGEACCESS	XREQUEST
1	DECIMAL	12	CPHAP_XREQUEST_UNPROTECT	XREQUEST
1	DECIMAL	13	CPHAP_XREQUEST_CHANGE_GUARD	XREQUEST
1	DECIMAL	14	CPHAP_XREQUEST_LIST	XREQUEST
1	DECIMAL	15	CPHAP_XREQUEST_GETCOMMON	XREQUEST
1	DECIMAL	16	CPHAP_XREQUEST_COUNTPAGES	XREQUEST
1	DECIMAL	17	CPHAP_XREQUEST_PCIEFIX	XREQUEST
1	DECIMAL	18	CPHAP_XREQUEST_PCIEUNFIX	XREQUEST
1	DECIMAL	19	CPHAP_XREQUEST_CHANGEATTRIBUTE	XREQUEST
1	DECIMAL	0	CPHAP_XDUMP_NONE	XDUMP
1	DECIMAL	1	CPHAP_XDUMP_NO	XDUMP
1	DECIMAL	2	CPHAP_XDUMP_LIKESQA	XDUMP
1	DECIMAL	3	CPHAP_XDUMP_LIKECSA	XDUMP
1	DECIMAL	32	CPHAP_XDUMP_LIKERGN	XDUMP
1	DECIMAL	33	CPHAP_XDUMP_LIKELSQA	XDUMP
1	DECIMAL	255	CPHAP_XDUMP_ALL	XDUMP
CPHA CONSTANTS				
4	CHARACTER	CPHA	CPHAIDEYE	Eyecatcher
4	DECIMAL	203	CPHASUBPOOLPVT	Subpool used for the CPHA when it is a private area pool

Table 16. Constants for IAXCPHA (continued)

Len	Type	Value	Name	Description
4	DECIMAL	245	CPHASUBPOOLCOM	Subpool used for the CPHA when it is a common area pool the same size as the CPHA.
4	DECIMAL	512	CPHAPOOLSIZE	CPHAs are obtained with IARST64 GET as long as the pool being build is not for the same size as the pool used for the CPHA. This avoids recursive gets.
4	DECIMAL	0	CPHAOFFSETCHECK_CPHAEXT	Check for Quadword

Table 17. Cross Reference for IAXCPHA

Name	Offset	Hex Tag
CPHA	0	
CPHA_CPUPA	4A	
CPHA_FIRSTOFMULTIHDR	5	04
CPHA_MULTIHDR	5	08
CPHAB	0	
CPHAB_KEYUSED_CONVERTSIZE64	4	04
CPHAB_KEYUSED_CONVERTSTART	4	10
CPHAB_KEYUSED_DUMP	7B	80
CPHAB_KEYUSED_GUARDSIZE64	4	08
CPHAB_KEYUSED_INORIGIN	A9	80
CPHAB_KEYUSED_KEY	4	80
CPHAB_KEYUSED_MOTKN	4	02
CPHAB_KEYUSED_OBJECTTYPE	AA	80
CPHAB_KEYUSED_OPTIONVALUE	7B	40
CPHAB_KEYUSED_OWNERJOBNAME	4	01
CPHAB_KEYUSED_SENSITIVE	A9	10
CPHAB_KEYUSED_SVCDUMPRGN	7B	20
CPHAB_KEYUSED_TTOKEN	4	20
CPHAB_KEYUSED_UNITS	A8	80
CPHAB_KEYUSED_USERTKN	4	40
CPHAB_XAFFINITY_SYSTEM	6	40
CPHAB_XALETVALUE	48	
CPHAB_XAMOUNTSIZE_1MEG	7A	02
CPHAB_XAMOUNTSIZE_4K	7A	04
CPHAB_XATTRIBUTE_DEFS	7B	10
CPHAB_XATTRIBUTE_NOTOWNERGONE	7B	04
CPHAB_XATTRIBUTE_OWNERGONE	7B	08
CPHAB_XCHANGEACCESS_GLOBAL	5	08
CPHAB_XCLEAR_NO	7	40
CPHAB_XCOND_YES	5	80
CPHAB_XCONTROL_AUTH	5	20

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAB_XCONVERT_FROMGUARD	7	02
CPHAB_XCONVERT_TOGUARD	7	04
CPHAB_XCONVERTSIZE	44	
CPHAB_XCONVERTSIZE64	60	
CPHAB_XCONVERTSTART	58	
CPHAB_XDETACHFIXED_YES	7A	20
CPHAB_XDISCARDPAGES_YES	7D	04
CPHAB_XDMAPAGETABLE	98	
CPHAB_XDOAUTHCHECKS_YES	7A	10
CPHAB_XDUMP	7C	
CPHAB_XDUMPPRIORITY	78	
CPHAB_XDUMPPROTOCOL_YES	79	80
CPHAB_XEXECUTABLE_NO	7D	01
CPHAB_XEXECUTABLE_YES	7D	02
CPHAB_XFLAGS0	2	
CPHAB_XFLAGS0_RSVD1	2	1F
CPHAB_XFLAGS1	4	
CPHAB_XFLAGS10	A9	
CPHAB_XFLAGS10_RSVD1	A9	0F
CPHAB_XFLAGS11	AA	
CPHAB_XFLAGS11_RSVD1	AA	1F
CPHAB_XFLAGS2	5	
CPHAB_XFLAGS3	6	
CPHAB_XFLAGS4	7	
CPHAB_XFLAGS5	79	
CPHAB_XFLAGS6	7A	
CPHAB_XFLAGS7	7B	
CPHAB_XFLAGS8	7D	
CPHAB_XFLAGS9	A8	
CPHAB_XFLAGS9_RSVD1	A8	03
CPHAB_XFPROT_NO	5	40
CPHAB_XGUARDLOC_HIGH	5	10
CPHAB_XGUARDSIZE	40	
CPHAB_XGUARDSIZE64	68	
CPHAB_XINADDR	38	
CPHAB_XINORIGIN	38	
CPHAB_XKEEPREAL_NO	7	01
CPHAB_XKEY	3	
CPHAB_XLOCALSYSAREA_YES	7A	08

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAB_XLONG_NO	7	80
CPHAB_XMATCH_MOTOKEN	2	20
CPHAB_XMATCH_USERTOKEN	6	80
CPHAB_XMEMLIMIT_COND	7A	01
CPHAB_XMEMLIMIT_NO	7A	40
CPHAB_XMEMOBJSTART	38	
CPHAB_XMOTKN	20	
CPHAB_XMOTKNCREATOR_SYSTEM	2	40
CPHAB_XMOTKNSOURCE_SYSTEM	2	80
CPHAB_XNUMRANGE	4C	
CPHAB_XOBJECTTYPE_POOL	AA	40
CPHAB_XOBJECTTYPE_RSMINTERNAL	AA	20
CPHAB_XOPTIONVALUE	80	
CPHAB_XORDER_DUMPRIORITY	79	40
CPHAB_XORIGIN	28	
CPHAB_XOUTMOTKN	20	
CPHAB_XOWNER_NO	6	10
CPHAB_XOWNERASID	7E	
CPHAB_XOWNERCOM_BYASID	79	01
CPHAB_XOWNERCOM_HOME	79	08
CPHAB_XOWNERCOM_PRIMARY	79	04
CPHAB_XOWNERCOM_SYSTEM	79	02
CPHAB_XOWNERJOBNAME	89	
CPHAB_XPAGEFRAMESIZE_ALL	5	01
CPHAB_XPAGEFRAMESIZE_DREF1MEG	7D	40
CPHAB_XPAGEFRAMESIZE_MAX	5	02
CPHAB_XPAGEFRAMESIZE_PAGEABLE1MEG	7D	80
CPHAB_XPAGEFRAMESIZE_1M	A8	10
CPHAB_XPAGEFRAMESIZE_1MEG	5	04
CPHAB_XPAGEFRAMESIZE_2G	A8	08
CPHAB_XRANGLIST	30	
CPHAB_XREQUEST	1	
CPHAB_XRSV0001	81	
CPHAB_XRSV0004	91	
CPHAB_XRSV0005	AB	
CPHAB_XSADMP_NO	7D	10
CPHAB_XSADMP_YES	7D	20
CPHAB_XSEGMENTS	8	
CPHAB_XSENSITIVE_NO	A9	20

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAB_XSENSITIVE_YES	A9	40
CPHAB_XSVCDUMPRGN_ALL	6	01
CPHAB_XSVCDUMPRGN_NO	6	04
CPHAB_XTRACKINFO_YES	7B	02
CPHAB_XTTOKEN	10	
CPHAB_XTYPE_DREF	79	10
CPHAB_XTYPE_FIXED	A8	04
CPHAB_XTYPE_PAGEABLE	79	20
CPHAB_XUNITS	A0	
CPHAB_XUNITSIZE_1M	A8	40
CPHAB_XUNITSIZE_2G	A8	20
CPHAB_XUNLOCKED_YES	7B	01
CPHAB_XUSERTKN	20	
CPHAB_XUSERTOKEN	70	
CPHAB_XUSE2GT032G_YES	6	20
CPHAB_XUSE2GT064G_YES	7D	08
CPHAB_XVERSION	0	
CPHAB_XVIEW_HIDDEN	7	08
CPHAB_XVIEW_READONLY	7	20
CPHAB_XVIEW_SHAREDWRITE	7	10
CPHAB_XV64COMMON_NO	7A	80
CPHAB_XV64LISTLENGTH	54	
CPHAB_XV64LISTPTR	50	
CPHAB_XV64SELECT_NO	6	08
CPHAB_XV64SHARED_NO	6	02
CPHACELLSIZE	44	
CPHACELLSZ	4C	
CPHACELLSZREQ	40	
CPHACPHD	38	
CPHAEXT	60	
CPHAEXTANC	60	
CPHAEXTSEQ	68	
CPHAFLG1	5	
CPHAF1FIXED	5	80
CPHAF1ST64	5	20
CPHAF1TRY1MPAGESIZE	5	40
CPHAID	0	
CPHAKEY	6	
CPHALOCSYSA	5	10

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHANEXT	C	
CPHANUMCAEPAGESTOFIX	48	
CPHANUMCELLPAGESTOFIX	49	
CPHAP	80	
CPHAP_KEYUSED_CONVERTSIZE64	84	04
CPHAP_KEYUSED_CONVERTSTART	84	10
CPHAP_KEYUSED_DUMP	FB	80
CPHAP_KEYUSED_GUARDSIZE64	84	08
CPHAP_KEYUSED_INORIGIN	129	80
CPHAP_KEYUSED_KEY	84	80
CPHAP_KEYUSED_MOTKN	84	02
CPHAP_KEYUSED_OBJECTTYPE	12A	80
CPHAP_KEYUSED_OPTIONVALUE	FB	40
CPHAP_KEYUSED_OWNERJOBNAME	84	01
CPHAP_KEYUSED_SENSITIVE	129	10
CPHAP_KEYUSED_SVCDUMPRGN	FB	20
CPHAP_KEYUSED_TTOKEN	84	20
CPHAP_KEYUSED_UNITS	128	80
CPHAP_KEYUSED_USERTKN	84	40
CPHAP_XAFFINITY_SYSTEM	86	40
CPHAP_XALETVALUE	C8	
CPHAP_XAMOUNTSIZE_1MEG	FA	02
CPHAP_XAMOUNTSIZE_4K	FA	04
CPHAP_XATTRIBUTE_DEFS	FB	10
CPHAP_XATTRIBUTE_NOTOWNERGONE	FB	04
CPHAP_XATTRIBUTE_OWNERGONE	FB	08
CPHAP_XCHANGEACCESS_GLOBAL	85	08
CPHAP_XCLEAR_NO	87	40
CPHAP_XCOND_YES	85	80
CPHAP_XCONTROL_AUTH	85	20
CPHAP_XCONVERT_FROMGUARD	87	02
CPHAP_XCONVERT_TOGUARD	87	04
CPHAP_XCONVERTSIZE	C4	
CPHAP_XCONVERTSIZE64	E0	
CPHAP_XCONVERTSTART	D8	
CPHAP_XDETACHFIXED_YES	FA	20
CPHAP_XDISCARDPAGES_YES	FD	04
CPHAP_XDMAPAGETABLE	118	
CPHAP_XDOAUTHCHECKS_YES	FA	10



Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAP_XDUMP	FC	
CPHAP_XDUMPPRIORITY	F8	
CPHAP_XDUMPPROTOCOL_YES	F9	80
CPHAP_XEXECUTABLE_NO	FD	01
CPHAP_XEXECUTABLE_YES	FD	02
CPHAP_XFLAGS0	82	
CPHAP_XFLAGS0_RSVD1	82	1F
CPHAP_XFLAGS1	84	
CPHAP_XFLAGS10	129	
CPHAP_XFLAGS10_RSVD1	129	0F
CPHAP_XFLAGS11	12A	
CPHAP_XFLAGS11_RSVD1	12A	1F
CPHAP_XFLAGS2	85	
CPHAP_XFLAGS3	86	
CPHAP_XFLAGS4	87	
CPHAP_XFLAGS5	F9	
CPHAP_XFLAGS6	FA	
CPHAP_XFLAGS7	FB	
CPHAP_XFLAGS8	FD	
CPHAP_XFLAGS9	128	
CPHAP_XFLAGS9_RSVD1	128	03
CPHAP_XFPROT_NO	85	40
CPHAP_XGUARDLOC_HIGH	85	10
CPHAP_XGUARDSIZE	C0	
CPHAP_XGUARDSIZE64	E8	
CPHAP_XINADDR	B8	
CPHAP_XINORIGIN	B8	
CPHAP_XKEEPREAL_NO	87	01
CPHAP_XKEY	83	
CPHAP_XLOCALSYSAREA_YES	FA	08
CPHAP_XLONG_NO	87	80
CPHAP_XMATCH_MOTOKEN	82	20
CPHAP_XMATCH_USERTOKEN	86	80
CPHAP_XMEMLIMIT_COND	FA	01
CPHAP_XMEMLIMIT_NO	FA	40
CPHAP_XMEMOBJSTART	B8	
CPHAP_XMOTKN	A0	
CPHAP_XMOTKNCREATOR_SYSTEM	82	40
CPHAP_XMOTKNSOURCE_SYSTEM	82	80

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAP_XNUMRANGE	CC	
CPHAP_XOBJECTTYPE_POOL	12A	40
CPHAP_XOBJECTTYPE_RSMINTERNAL	12A	20
CPHAP_XOPTIONVALUE	100	
CPHAP_XORDER_DUMPRIORITY	F9	40
CPHAP_XORIGIN	A8	
CPHAP_XOUTMOTKN	A0	
CPHAP_XOWNER_NO	86	10
CPHAP_XOWNERASID	FE	
CPHAP_XOWNERCOM_BYASID	F9	01
CPHAP_XOWNERCOM_HOME	F9	08
CPHAP_XOWNERCOM_PRIMARY	F9	04
CPHAP_XOWNERCOM_SYSTEM	F9	02
CPHAP_XOWNERJOBNAME	109	
CPHAP_XPAGEFRAMESIZE_ALL	85	01
CPHAP_XPAGEFRAMESIZE_DREF1MEG	FD	40
CPHAP_XPAGEFRAMESIZE_MAX	85	02
CPHAP_XPAGEFRAMESIZE_PAGEABLE1MEG	FD	80
CPHAP_XPAGEFRAMESIZE_1M	128	10
CPHAP_XPAGEFRAMESIZE_1MEG	85	04
CPHAP_XPAGEFRAMESIZE_2G	128	08
CPHAP_XRANGLIST	B0	
CPHAP_XREQUEST	81	
CPHAP_XRSV0001	101	
CPHAP_XRSV0004	111	
CPHAP_XRSV0005	12B	
CPHAP_XSADMP_NO	FD	10
CPHAP_XSADMP_YES	FD	20
CPHAP_XSEGMENTS	88	
CPHAP_XSENSITIVE_NO	129	20
CPHAP_XSENSITIVE_YES	129	40
CPHAP_XSVCDUMPRGN_ALL	86	01
CPHAP_XSVCDUMPRGN_NO	86	04
CPHAP_XTRACKINFO_YES	FB	02
CPHAP_XTTOKEN	90	
CPHAP_XTYPE_DREF	F9	10
CPHAP_XTYPE_FIXED	128	04
CPHAP_XTYPE_PAGEABLE	F9	20
CPHAP_XUNITS	120	

Table 17. Cross Reference for IAXCPHA (continued)

Name	Offset	Hex Tag
CPHAP_XUNITSIZE_1M	128	40
CPHAP_XUNITSIZE_2G	128	20
CPHAP_XUNLOCKED_YES	FB	01
CPHAP_XUSERTKN	A0	
CPHAP_XUSERTOKEN	F0	
CPHAP_XUSE2GT032G_YES	86	20
CPHAP_XUSE2GT064G_YES	FD	08
CPHAP_XVERSION	80	
CPHAP_XVIEW_HIDDEN	87	08
CPHAP_XVIEW_READONLY	87	20
CPHAP_XVIEW_SHAREDWRITE	87	10
CPHAP_XV64COMMON_NO	FA	80
CPHAP_XV64LISTLENGTH	D4	
CPHAP_XV64LISTPTR	D0	
CPHAP_XV64SELECT_NO	86	08
CPHAP_XV64SHARED_NO	86	02
CPHAPAGEFIXCAEMASK	8	
CPHAPTCBFROMTTOKEN	9C	
CPHARSV1	7	
CPHARSV2	28	
CPHARSV3	50	
CPHARSV4	70	
CPHASP	4	
CPHAUSERDATA	10	
CPHAUSERTKN	30	
CPHAV64PL	80	

## IAXCPHD information

### IAXCPHD heading information

<b>Common name:</b>	RSM Cell Pool Header
<b>Macro ID:</b>	IAXCPHD
<b>DSECT name:</b>	CPHD
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	CPHD Offset: 0 Length: 4 bytes

**Storage attributes:** Virtual Storage: YES  
Subpool: Resides in 64 bit storage with the same attributes of the cell pool that it manages.  
Key: Key of the pool  
Data Space: NO  
Residency: Above the bar

**Size:** ??? bytes

**Created by:** IARCYBLD

**Pointed to by:** Cell pool ID returned from IARCP64 BUILD  
CPHACPHD points back to the header.

**Serialization:** CDSG is used to update queue headers.

**Function:** The CPHD contains a the anchors for a 64 bit cell pool.  
1. Anchor to free chain of cells.  
2. Pointer to the next free cell in the active extent.  
3. Pointer to the CPHA that contains things the user of the pools should not be able to modify.

## IAXCPHD mapping

Table 18. Structure CPHD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	256	CPHD	Note that the CPHD is always on a page boundary at the start of a meg.
0	(0)	CHARACTER	64	CPHDCOMMON	Data that is common to all extents in the pool
0	(0)	CHARACTER	16	CPHDVERIFYAREA	Area copied with caller's key during IARCP64 DELETE process
0	(0)	CHARACTER	4	CPHDID	Cphd control block identifier
4	(4)	CHARACTER	1	CPHDTYP	EBCDIC character to identify the type of Cphd M for Main extent S for Secondary extent
5	(5)	BITSTRING	1	CPHDFLG1	Flag bits
	1... ....			CPHDTRAILERACTIVE	As long as the requested size is at least 4 bytes less than the rounded up cell size, a trailer will be set in the cell on GET and tested on FREE to detect cell overruns.
	.1.. ....			CPHDPRESERVE	Data in cells should not be overlayed with DIAGxx DIRTY processing.
	..1. ....			CPHDST64	Indicates that this Cellpool is part of an IARST64 pool
	...1 ....			CPHDCOULDBEDISABLED	This pool is fixed or DREF, so caller can be disabled.
	.... 1...			CPHD2GEXTENTSIZE	Pool was built with a 2G extent size
	.... .1..			CPHD_MULTIHDR	This pool is a multi-header pool
	.... ..1.			CPHD_FIRSTOFMULTIHDR	First CPHD of a multi-header pool
6	(6)	SIGNED	2	CPHD_CPUPA	For Multi-header cell pools the physical CPU address associated with this pool. See PSACPUPA
8	(8)	ADDRESS	8	CPHDCPHA	Address of the CPHA containing cell pool stuff we don't want the user to be able to alter. Note that after a fork, this pointer in a secondary extent is likely incorrect. We don't use it from extents, so that's OK.

Table 18. Structure CPHD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Start Quadword 2					
16	(10)	CHARACTER	48	CPHDRESTOFCOMMON	Area copied with caller's key
16	(10)	UNSIGNED	4	CPHDCASPC	Control Area space.
20	(14)	UNSIGNED	4	CPHDCAESIZE	Size of a single control area element.
24	(18)	ADDRESS	8	CPHDPCPHD	Address of main CPHD for the cell pool
Start Quadword 3					
32	(20)	CHARACTER	24	CPHDUSERDATA	Caller provided test string to make it easy to spot cell pool extents in a dump.
56	(38)	UNSIGNED	4	CPHDCELLSIZE	Size of the cells in this pool. This is the size after the build routine has rounded the user's request to the appropriate boundary.
60	(3C)	UNSIGNED	4	CPHDHIIDX	Highest index into control array makes for faster test. This +1 is the number of cells in an extent
Start Quadword 5					
64	(40)	CHARACTER	16	CPHD_COUNTS	Only updated in 1st extent
64	(40)	UNSIGNED	8	CPHD_TOTALFREES	
72	(48)	UNSIGNED	8	CPHD_TOTALFREESMATCHINGCPU	
Start Quadword 6					
80	(50)	CHARACTER	48	CPHDUNIQUE	Data unique to each extent
80	(50)	CHARACTER	16	CPHDUANCHORS	Anchors for this extent.
80	(50)	ADDRESS	8	CPHDCAANC	Address of the control array in the extent.
88	(58)	ADDRESS	8	CPHDCELLANC	Address of the first cell in the extent.
Start Quadword 7					
96	(60)	CHARACTER	16	CPHDUEXTCHAIN	Extent chain.
96	(60)	ADDRESS	8	CPHDURSV1	Reserved for a sequence number if we ever add logic to compress a pool and need to remove CPHDs from the chain with CDSG.
104	(68)	ADDRESS	8	CPHDNEXTTEXT	Address of the next extent in the chain. Update with CSG. No seq number needed since nothing is ever removed from the chain
112	(70)	CHARACTER	16	CPHDUOTHER	Other stuff unique to this extent.
112	(70)	BITSTRING	1	CPHDUFLG	Flag bits
		1... ....		CPHDU1MPAGESIZE	This extent was allocated with a 1M page size.
113	(71)	CHARACTER	15	CPHDURSV2	Reserved
Start Quadword 8					
128	(80)	CHARACTER	48	CPHDMAIN	Data used only in main extent

Table 18. Structure CPHD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Quadword alignment is required for the following anchors since they are updated with CDSG.					
128	(80)	CHARACTER	16	CPHDFREECH	Anchor for free chain of cells. Serialization: CDSG with an incremented sequence number. MUST BE QUADWORD BOUNDARY
128	(80)	ADDRESS	8	CPHDFREEANC	Pointer to the first free control array element in a LIFO queue. When the queue is empty, this will have a value of CphdEndQ.
136	(88)	UNSIGNED	8	CPHDFREESEQ	Sequence number for the CDSG to update.
Start Quadword 9					
144	(90)	CHARACTER	16	CPHDHWM	Pointer to the High Water Mark in the active extent. Serialization: CDSG with an incremented sequence number. MUST BE QUADWORD BOUNDARY
144	(90)	ADDRESS	8	CPHDHWMANC	Pointer to the control array element that is at the HWM. or zero if the active extent has been consumed and a new extent is needed.
152	(98)	UNSIGNED	8	CPHDHWMSEQ	Sequence number for the CDSG to update.
160	(A0)	CHARACTER	16	CPHDRSV2	Reserved

Table 19. Structure CPHDCAEST64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	32	CPHDCAEST64	Control array element for IARST64
0	(0)	CHARACTER	16	CPHDCAECP64	Control array element for IARCP64
0	(0)	ADDRESS	8	CPHDCAENEXT	Address of next free cell or other control info.
0	(0)	ADDRESS	8	CPHDCAEREQUESTOR	Return address of the requestor for the cell
0	(0)	BITSTRING	7	*	
7	(7)	.... ...1		CPHDCAEINUSE	0 - cell is on the free Q 1 - cell is in use
8	(8)	BITSTRING	1	CPHDCAEFLAG1	Flags
		1... ....		CPHDCAEFTRACE	A system trace entry was created on GET and needs to be done on FREE.
9	(9)	BITSTRING	1	CPHDCAERSV	Reserved
10	(A)	SIGNED	2	CPHDCAEOWNERASID	Owner ASID when cell is in a common IARST64 pool
12	(C)	UNSIGNED	4	CPHDCAESIZEREQ	Size of cell requested if at least 4 bytes less than the cell size, we can do a trailer.
16	(10)	CHARACTER	8	CPHDCAESTCK	Timestamp of when the cell was obtained or freed.
24	(18)	CHARACTER	8	CPHDCAERSV2	Reserved

Table 20. Constants for IAXCPHD

Len	Type	Value	Name	Description
CPHD CONSTANTS				

Table 20. Constants for IAXCPHD (continued)

Len	Type	Value	Name	Description
4	CHARACTER	CPHD	CPHDIDEYE	Eyecatcher
1	CHARACTER	M	CPHDTYPEMAIN	Eyecatcher extension indicates the main CPHD for this pool
1	CHARACTER	S	CPHDTYPESEC	Eyecatcher extension indicates a secondary extent for this pool.
8	NUMB HEX	0000000080000000	CPHDENDQ	Value used to indicate an empty queue or end of queue.
2	HEX	0001	CPHDLOWBIT	Mask to set low bit on in control array entry to indicate the cell is in use with the address being the return @ of the requestor.
8	HEX	FFFFFFFFF00000	CPHDMEGMASK	Mask used to round an address to a meg boundary to get to the CPHD for this extent.
8	HEX	FFFFFFFF80000000	CPHD2GIGMASK	Mask used to round an address to a 2gig boundary to get to the CPHD for this extent.
1	HEX	4F	CPHDDEFAULTPAD	Default pad character if not set in DGNB
4	CHARACTER	A2C4	CPHDTRAILER	Trailer characters that are placed at the end of a cell to detect overruns.
4	DECIMAL	0	CPHD_OFFSETCHECK_CPHDFREECH	Check for Quadword
4	DECIMAL	0	CPHD_OFFSETCHECK_CPHDHWM	Check for Quadword
8	DECIMAL	-524289	CPHD_KCPIDMULTIHDR0FF	
8	DECIMAL	524288	CPHD_KCPIDMULTIHDRON	
8	DECIMAL	262144	CPHD_KCPID2GEXTENTSIZEON	
8	DECIMAL	-262145	CPHD_KCPID2GEXTENTSIZEOFF	
8	HEX	FFFFFFFFF00000	CPHD_KCPIDCPHD@MASK	

Table 21. Cross Reference for IAXCPHD

Name	Offset	Hex Tag
CPHD	0	
CPHD_COUNTS	40	
CPHD_CPUPA	6	
CPHD_FIRSTOFMULTIHDR	5	02
CPHD_MULTIHDR	5	04
CPHD_TOTALFREES	40	
CPHD_TOTALFREESMATCHINGCPU	48	
CPHDCAANC	50	
CPHDCAECP64	0	
CPHDCAEFLAG1	8	
CPHDCAEFTRACE	8	80
CPHDCAEINUSE	7	01
CPHDCAENEXT	0	
CPHDCAEOWNERASID	A	
CPHDCAEREQUESTOR	0	
CPHDCAERSV	9	
CPHDCAERSV2	18	

Table 21. Cross Reference for IAXCPHD (continued)

Name	Offset	Hex Tag
CPHDCAESIZE	14	
CPHDCAESIZEREQ	C	
CPHDCAESTCK	10	
CPHDCAEST64	0	
CPHDCASPC	10	
CPHDCELLANC	58	
CPHDCELLSIZE	38	
CPHDCOMMON	0	
CPHDCOULDBEDISABLED	5	10
CPHDCPHA	8	
CPHDCPHD	18	
CPHDFLG1	5	
CPHDFREEANC	80	
CPHDFREECH	80	
CPHDFREESEQ	88	
CPHDHIIDX	3C	
CPHDHWM	90	
CPHDHWMANC	90	
CPHDHWMSEQ	98	
CPHDID	0	
CPHDMAIN	80	
CPHDNEXTTEXT	68	
CPHDPRESERVE	5	40
CPHDRESTOFCOMMON	10	
CPHDSV2	A0	
CPHDST64	5	20
CPHDTRAILERACTIVE	5	80
CPHD TYP	4	
CPHDUANCHORS	50	
CPHDUEXTCHAIN	60	
CPHDUFLG	70	
CPHDUNIQUE	50	
CPHDUOTHER	70	
CPHDURSV1	60	
CPHDURSV2	71	
CPHDUSERDATA	20	
CPHDU1MPAGESIZE	70	80
CPHDVERIFYAREA	0	
CPHD2GEXTENTSIZE	5	08



## IAXDAB information

### IAXDAB heading information

<b>Common name:</b>	DATA SPACE ADDRESS SPACE BLOCK
<b>Macro ID:</b>	IAXDAB
<b>DSECT name:</b>	DAB
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	DAB Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: YES Auxiliary Storage: N/A Subpool: 245 Key: 0 Data Space: N/A Residency: Above 16M
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	DSPSERV CREATE (WHEN ADDRESS SPACE OWNS NO OTHER USER DATA SPACE)
<b>Pointed to by:</b>	RABDAB FREQUENCY: ONE DAB PER ADDRESS SPACE OWNING AT LEAST ONE DATA SPACE.
<b>Serialization:</b>	ADDRESS SPACE LEVEL LOCK FOR ADDRESS SPACE INITIALIZED BY: DSPSERV CREATE DESTROYED BY: NEVER
<b>Function:</b>	THE DAB IS AN EXTENSION OF THE RAB AND CONTAINS ADDRESS SPACE RELATED INFORMATION ABOUT DATA SPACES.

### IAXDAB mapping

Table 22. Structure DAB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	120	DAB	
0	(0)	CHARACTER	4	DABID	DAB CONTROL BLOCK ID
4	(4)	ADDRESS	4	DABRAB	ADDRESS OF THE RAB
8	(8)	UNSIGNED	4	DABDSPCT	NUMBER OF USER KEY DATA SPACES CURRENTLY OWNED BY TASKS IN THIS ADDRESS SPACE
12	(C)	CHARACTER	8	DABFIRSTUDDLOCATOR	Ptr and Alet that locates first Udd on the In-Use Queue
12	(C)	ADDRESS	4	DABIUUQF	POINTER TO THE FIRST UDD ON THE IN-USE UDD QUEUE (IUUQ)
16	(10)	UNSIGNED	4	DABIUUAF	ALET OF THE FIRST UDD ON THE IN-USE UDD QUEUE
20	(14)	CHARACTER	8	DABLASTUDDLOCATOR	Ptr and Alet that locates last Udd on the In-Use Queue

Table 22. Structure DAB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	ADDRESS	4	DABIUUQL	POINTER TO THE LAST UDD ON THE IN-USE UDD QUEUE
24	(18)	UNSIGNED	4	DABIUUAL	ALET OF THE LAST UDD ON THE IN-USE UDD QUEUE
28	(1C)	SIGNED	4	DABDSGNSRCHINDEX	Index into ds bitmap array to start search.
32	(20)	ADDRESS	8	DABDSGNBITMAPPTR	Pointer to bitmap array of data space generated names
40	(28)	ADDRESS	4	*	Reserved
4 DABDDFQF PTR(31), POINTER TO THE FIRST FRAME ON DEFERRED DELETE FRAME QUEUE (DDFQ) 4 DABDDFQL PTR(31), POINTER TO THE LAST FRAME ON DEFERRED DELETE FRAME QUEUE					
44	(2C)	ADDRESS	4	*	Reserved
48	(30)	ADDRESS	4	*	Reserved
52	(34)	ADDRESS	4	*	Reserved
56	(38)	ADDRESS	4	*	Reserved
60	(3C)	ADDRESS	4	*	Reserved
64	(40)	ADDRESS	4	*	Reserved
68	(44)	ADDRESS	4	DABDSCQF	POINTER TO THE FIRST FCB ON THE DATA SPACE CONTROL QUEUE
72	(48)	ADDRESS	4	DABDSCQL	POINTER TO THE LAST FCB ON THE DATA SPACE CONTROL QUEUE
76	(4C)	ADDRESS	4	DABRVRQF	POINTER TO THE FIRST RVR ON THE USER DATA SPACE RVR QUEUE
80	(50)	ADDRESS	4	DABRVRQL	POINTER TO THE LAST RVR ON THE USER DATA SPACE RVR QUEUE
84	(54)	ADDRESS	4	DABDVCQF	POINTER TO FIRST FCB ON THE DATASPACE VDAC CONTROL QUEUE (DVCQ)
88	(58)	ADDRESS	4	DABDVCQL	POINTER TO LAST FCB ON THE DATASPACE VDAC CONTROL QUEUE (DVCQ)
92	(5C)	SIGNED	4	DABNXGNP	NEXT GENERATED NAME PREFIX
96	(60)	SIGNED	4	DABCNMGN	NUMBER OF CURRENTLY OWNED DATA SPACES WITH GENERATED NAMES FOR THIS ADDRESS SPACE.
100	(64)	ADDRESS	4	*	Reserved
104	(68)	ADDRESS	4	*	Reserved
108	(6C)	BITSTRING	1	DABFLGS1	FLAG BYTE
	1... ....			DABHSPTZ	FDFQ MAY CONTAIN A NON-SHARED HIPERSPACE PAGE TABLE WITH A ZERO FIX COUNT.
	.1... ....			DABSHARE	SOME UDS AT ONE TIME CONTAINED SHARED PAGES
	..1. ....			DABMEGAROOED	Some UDS contains shared segments
	...1 1111			*	RESERVED
109	(6D)	CHARACTER	3	*	RESERVED
112	(70)	ADDRESS	8	DABFCUR	PDFQ PREF STEAL CURSOR OR ZERO
120	(78)	CHARACTER	0	*	KEEP DAB A MULTIPLE OF 8 BYTES

Table 23. Structure G\_DABBITMAPARRAY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16384	G_DABBITMAPARRAY	Storage for the DS gen name bitmap array - 4K
0	(0)	BITSTRING	12500	G_DABDSGN_BITMAP	

Table 24. Constants for IAXDAB

Len	Type	Value	Name	Description
4	DECIMAL	100000	K_DSGN_MAX	Maximum size of entries for DS generated names (prefix from 0 to 99,999)

Table 25. Cross Reference for IAXDAB

Name	Offset	Hex Tag
DAB	0	
DABCNMGN	60	
DABDSCQF	44	
DABDSCQL	48	
DABDSGNBITMAPPTR	20	
DABDSGNSRCHINDEX	1C	
DABDSPCT	8	
DABDVCQF	54	
DABDVCQL	58	
DABFCUR	70	
DABFIRSTUDDLOCATOR	C	
DABFLGS1	6C	
DABHSPTZ	6C	80
DABID	0	
DABIUUAF	10	
DABIUUAL	18	
DABIUUQF	C	
DABIUUQL	14	
DABLASTUDDLOCATOR	14	
DABMEGAROOED	6C	20
DABNXGNP	5C	
DABRAB	4	
DABRVRQF	4C	
DABRVRQL	50	
DABSHARE	6C	40
G_DABBITMAPARRAY	0	
G_DABDSGN_BITMAP	0	

# IAXEPVT information

## IAXEPVT programming interface information

**ONLY** the following fields are part of the programming interface information:

- Epvt\_BRVKA@
- Epvt\_BRVKR@
- Epvt\_XNDMAAddr
- Epvt\_31CommonRax@
- Epvt\_31SharedRax@
- Epvt\_64SharedGroupRax@
- Epvt\_64SharedRax@

## IAXEPVT heading information

**Common name:** RSM Control and Enumeration Area

**Macro ID:** IAXEPVT

**DSECT name:** EPVT

**Owning component:** Real Storage Manager (SC1CR)

**Eye-catcher ID:** IAXEPVT  
Offset: 0  
Length: 8

**Storage attributes:** Virtual Storage: Yes  
Subpool: Extended r/o nucleus  
Key: 0  
Data Space: No  
Residency: Above 16 megabytes virtual

**Size:** 256 bytes on a 256 byte boundary (cache aligned)  
EPVT -- X'0100' bytes

**Created by:** IAXM0

**Pointed to by:** PVTEPVT

**Serialization:** NONE (r/o nucleus)

**Function:** Contains address of entry points and other control structures that reside in the nucleus.

## IAXEPVT mapping

Table 26. Structure EPVT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	EPVT	
0	(0)	CHARACTER	8	EPVT_ID	
8	(8)	ADDRESS	4	EPVT_BRVKR@	
12	(C)	ADDRESS	4	EPVT_BRVKA@	
16	(10)	ADDRESS	8	EPVT_31COMMONRAB@	
16	(10)	CHARACTER	4		

Table 26. Structure EPVT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	ADDRESS	4	EPVT_31COMMONRABLOW@	
24	(18)	ADDRESS	8	EPVT_64SHAREDGROUPRAB@	
24	(18)	CHARACTER	4		
28	(1C)	ADDRESS	4	EPVT_64SHAREDGROUPRABLOW@	
32	(20)	ADDRESS	8	EPVT_31SHAREDRA@	
32	(20)	CHARACTER	4		
36	(24)	ADDRESS	4	EPVT_31SHAREDRABLOW@	
40	(28)	ADDRESS	8	EPVT_64SHAREDRA@	
40	(28)	CHARACTER	4		
44	(2C)	ADDRESS	4	EPVT_64SHAREDRABLOW@	
48	(30)	ADDRESS	8	EPVT_31COMMONRAX@	
48	(30)	CHARACTER	4		
52	(34)	ADDRESS	4	EPVT_31COMMONRAXLOW@	
56	(38)	ADDRESS	8	EPVT_64SHAREDGROUPRAX@	
56	(38)	CHARACTER	4		
60	(3C)	ADDRESS	4	EPVT_64SHAREDGROUPRAXLOW@	
64	(40)	ADDRESS	8	EPVT_31SHAREDRA@	
64	(40)	CHARACTER	4		
68	(44)	ADDRESS	4	EPVT_31SHAREDRA@	
72	(48)	ADDRESS	8	EPVT_64SHAREDRA@	
72	(48)	CHARACTER	4		
76	(4C)	ADDRESS	4	EPVT_64SHAREDRA@	
80	(50)	ADDRESS	4	EPVT_VUES1@	
84	(54)	ADDRESS	4	EPVT_MDJST@	
88	(58)	ADDRESS	4	EPVT_U@BLD@	
92	(5C)	ADDRESS	4	EPVT_VQFNB@	
96	(60)	ADDRESS	4	EPVT_VQRNB@	
100	(64)	ADDRESS	4	EPVT_MFDMA@	
104	(68)	ADDRESS	4	EPVT_GJOB@	
108	(6C)	ADDRESS	4	EPVT_MGMD@	
112	(70)	ADDRESS	4	EPVT_XNDMADDR	
116	(74)	ADDRESS	4	EPVT_C1INF@	
120	(78)	ADDRESS	4	EPVT_CJTOTADDR	
124	(7C)	ADDRESS	4	EPVT_XWLCS@	
128	(80)	CHARACTER	128		
128	(80)	X'100'	0	EPVT_LEN	"*-EPVT"

Table 27. Cross Reference for IAXEPVT

Name	Offset	Hex Tag
EPVT	0	
EPVT_BRVKA@	C	
EPVT_BRVKR@	8	
EPVT_CJTOTADDR	78	
EPVT_C1INF@	74	

Table 27. Cross Reference for IAXEPVT (continued)

Name	Offset	Hex Tag
EPVT_GJOB@	68	
EPVT_ID	0	
EPVT_LEN	80	100
EPVT_MDJST@	54	
EPVT_MFDMA@	64	
EPVT_MGMOD@	6C	
EPVT_U0BLD@	58	
EPVT_VQFNB@	5C	
EPVT_VQRNB@	60	
EPVT_VUES1@	50	
EPVT_XNDMADDR	70	
EPVT_XWLCS@	7C	
EPVT_31COMMONRAB@	10	
EPVT_31COMMONRABLOW@	14	
EPVT_31COMMONRAX@	30	
EPVT_31COMMONRAXLOW@	34	
EPVT_31SHAREDRAW@	20	
EPVT_31SHAREDRAWLOW@	24	
EPVT_31SHAREDRAW@	40	
EPVT_31SHAREDRAWLOW@	44	
EPVT_64SHAREDGROUPRAW@	18	
EPVT_64SHAREDGROUPRAWLOW@	1C	
EPVT_64SHAREDGROUPRAW@	38	
EPVT_64SHAREDGROUPRAWLOW@	3C	
EPVT_64SHAREDRAW@	28	
EPVT_64SHAREDRAWLOW@	2C	
EPVT_64SHAREDRAW@	48	
EPVT_64SHAREDRAWLOW@	4C	

## IAXHP1 information

### IAXHP1 heading information

<b>Common name:</b>	RSM Heap Pool Level 1 block
<b>Macro ID:</b>	IAXHP1
<b>DSECT name:</b>	HP1
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)

**Eye-catcher ID:** HP1  
Offset: 0  
Length: 6 bytes

**Storage attributes:** Virtual Storage: YES  
Subpool: 245 (ESQA) or 233 (ELSQA)  
Key: 0  
Data Space: NO  
Residency: Below 2G

**Size:** ??? bytes

**Created by:** IAXCY

**Pointed to by:** ECVTHP1 FIELD OF THE ECVT DATA AREA  
STCBHP1 FIELD OF THE STCB DATA AREA  
Hp1a\_Hp1@ field of the HP1A data area

**Serialization:** CSG to set a pointer in the HP1. Loser  
frees the HP1A that it would have pointed to.

**Function:** The HP1 contains an array of anchors to Heap Pool 1A blocks.  
Each entry in the HP1 represents a set of storage characteristics:  
Fetch protected or Not Fetch protected  
LocalSysArea or Not LocalSysArea  
Memlimit or Not Memlimit  
System Key 0-7 for common HP1, Key 0-15 for private HP1  
Type - pagable, DREF, Fixed  
Note that FIXED TYPE is now supported in key 0 to 7  
Also DREF TYPE was and still supported in key 0 to 7

## IAXHP1 mapping

Table 28. Structure HP1

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	HP1	
0	(0)	CHARACTER	16	HP1_STATIC	Fixed size part of HP1
0	(0)	CHARACTER	6	HP1ID	HP1 Control block identifier
6	(6)	CHARACTER	1	HP1TYP	EBCDIC character to identify the type of hp1 C for Common area HP1, P for Private area HP1
7	(7)	BITSTRING	1	HP1FLGS1	Flag byte 1
8	(8)	UNSIGNED	1	HP1ENTRIES	Number of entries in the Hp1_Hp1a@ array.
9	(9)	CHARACTER	7	HP1RSV1	Reserved
16	(10)	CHARACTER	*	HP1_VARIABLE	Variable size part of HP1
16	(10)	ADDRESS	8	HP1_HP1A@(*)	Array of pointers to HP1As Serialization: CSG used to set each pointer in Hp1_Hp1a@ HP1 when attribute set is first used.

Table 29. Constants for IAXHP1

Len	Type	Value	Name	Description
6	CHARACTER	IAXHP1	HP1IDEYE	Eyecatcher
4	DECIMAL	47	HP1#CATTRHI	Highest index into HP1_HP1A@ for the common HP1.

Table 29. Constants for IAXHP1 (continued)

Len	Type	Value	Name	Description
4	DECIMAL	191	HP1#PATTRHI	Highest index into HP1_HP1A@ for private HP1s.
4	DECIMAL	245	HP1#SUBPOOLCOMMON	Subpool for HP1 used for common pools. (SQA)
4	DECIMAL	233	HP1#SUBPOOLPRIVATE	Subpool for HP1 used for private pools. Must be DREF and owned by the task.
1	CHARACTER	C	HP1#TYPECOMMON	Type common
1	CHARACTER	P	HP1#TYPEPRIVATE	Type Private

## IAXHP2 information

### IAXHP2 heading information

<b>Common name:</b>	RSM Heap Pool Level 2 block
<b>Macro ID:</b>	IAXHP2
<b>DSECT name:</b>	HP2
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	HP2 Offset: 0 Length: 6 bytes
<b>Storage attributes:</b>	Virtual Storage: YES Key: 0 Data Space: NO Residency: Below 2G
<b>Size:</b>	??? bytes
<b>Created by:</b>	IARCYSTE
<b>Pointed to by:</b>	Hp1a_Hp2@ field in the IAXHP1A data area
<b>Serialization:</b>	CSG to set a pointer in the HP2. Loser frees the HP2 that it would have pointed to.
<b>Function:</b>	The HP2 contains an array of anchors to Heap Pool Header blocks. Each entry in the HP2 represents a pool of storage cells of a fixed size. Range 64 bytes to 128K in multiples of 2.

### IAXHP2 mapping

Table 30. Structure HP2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	120	HP2	
0	(0)	CHARACTER	6	HP2ID	HP2 CONTROL BLOCK IDENTIFIER
6	(6)	BITSTRING	1	HP2FLGS1	FLAG BYTE 1
7	(7)	UNSIGNED	1	HP2ENTRIES	Number of entries in the HP2Ary array.
8	(8)	ADDRESS	8	HP2_HP1A@	Address of HP1A which owns this HP2.



Table 30. Structure HP2 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	CHARACTER	8	HP2RSV1	Reserved
24	(18)	ADDRESS	8	HP2ARY(12)	Array of pointers to cell pool headers. Serialization: CSG from zero to the cell pool header. Loser of race frees the cell pool header. 1 represents 64 bytes ... 12 represents 128K.

Table 31. Constants for IAXHP2

Len	Type	Value	Name	Description
6	CHARACTER	IAXHP2	HP2IDEYE	Eyecatcher
4	DECIMAL	64	HP2MINSIZE	Smallest cell obtained for requests under 65 bytes
4	DECIMAL	245	HP2#SUBPOOLCOMMON	Subpool for HP2 used for common pools. (SQA)
4	DECIMAL	233	HP2#SUBPOOLPRIVATE	Subpool for HP2 used for private pools. Must be DREF and owned by the task.

## IAXPFTE information

### IAXPFTE heading information

<b>Common name:</b>	PAGE FRAME TABLE ENTRY
<b>Macro ID:</b>	IAXPFTE
<b>DSECT name:</b>	PFTE
<b>Owning component:</b>	Real Storage Manager (SC1CR)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Virtual Storage: Yes Subpool: N/A (See Residency) Key: 0 Residency: A dataspace called IARPFT
<b>Size:</b>	64 Bytes
<b>Created by:</b>	RSM Initialization

**Pointed to by:**

PFTFQPTR field of the PFTE Data Area  
 PFTBQPTR field of the PFTE Data Area  
 RITPFTE field of the RIT Data Area  
 RITLPFTE field of the RIT Data Area  
 RIT\_NONDMEMLPFTE field of the RIT Data Area  
 RITFPFTE field of the RIT Data Area  
 RITPAFQF field of the RIT Data Area  
 RITPAFQL field of the RIT Data Area  
 RITNAFQF field of the RIT Data Area  
 RITNAFQL field of the RIT Data Area  
 RITPBFQF field of the RIT Data Area  
 RITPBFQL field of the RIT Data Area  
 RITNBFQF field of the RIT Data Area  
 RITNBFQL field of the RIT Data Area  
 RITTDFQF field of the RIT Data Area  
 RITTDFQL field of the RIT Data Area  
 RITBDFQF field of the RIT Data Area  
 RITBDFQL field of the RIT Data Area  
 RITSFQF field of the RIT Data Area  
 RITSFQL field of the RIT Data Area  
 RITRSFQF field of the RIT Data Area  
 RITRSFQL field of the RIT Data Area  
 RITSBFQF field of the RIT Data Area  
 RITSBFQL field of the RIT Data Area  
 RITVRFQF field of the RIT Data Area  
 RITVRFQL field of the RIT Data Area  
 RITFVR field of the RIT Data Area  
 RITLVR field of the RIT Data Area  
 RITNPFTE field of the RIT Data Area  
 RITPFTEC field of the RIT Data Area  
 RITSFFQF field of the RIT Data Area  
 RITSFFQL field of the RIT Data Area  
 RITSPFQF field of the RIT Data Area  
 RITSPFQL field of the RIT Data Area  
 RITNHFQF field of the RIT Data Area  
 RITNHFQL field of the RIT Data Area  
 RITQSFQF field of the RIT Data Area  
 RITQSFQL field of the RIT Data Area  
 RITQDFQF field of the RIT Data Area  
 RITQDFQL field of the RIT Data Area  
 RITQHFQF field of the RIT Data Area  
 RITQHFQL field of the RIT Data Area  
 RIT2GPFTE field of the RIT Data Area  
 RITPFTEC field of the RIT Data Area  
 RITPFTAC field of the RIT Data Area  
 RITGDFQF field of the RIT Data Area  
 RITGDFQL field of the RIT Data Area  
 RITQDPrefStealCursor field of the RIT Data Area  
 RITQDStealCursor field of the RIT Data Area  
 PCBPTE field of the PCB Data Area  
 RABPFQF field of the RAB Data Area

RABPFQL field of the RAB Data Area  
 RABFFQF field of the RAB Data Area  
 RABFFQL field of the RAB Data Area  
 RABDFFQF field of the RAB Data Area  
 RABDFFQL field of the RAB Data Area

**Serialization:**

Varies

**Function:**

Represents a FRAME to RSM

## IAXPFTE mapping

Table 32. Structure PFTE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	64	PFTE	
0	(0)	CHARACTER	16	PFTSECTP	PFTE Queue Pointer Section
0	(0)	CHARACTER	16	*	
0	(0)	STRUCTURE IsA(CONST_TANCH ORLINK)	16	PFTEQUEUEANCHOR	Anchor for the Pfte queue - The following methods use this TYPE: PfteM_cChainAdd
0	(0)	CHARACTER	16	*	
0	(0)	CHARACTER	16	*	As anchor
0	(0)	ADDRESS	8	FIRST@	
8	(8)	ADDRESS	8	LAST@	
0	(0)	CHARACTER	16	*	As link
0	(0)	ADDRESS	8	NEXT@	
8	(8)	ADDRESS	8	PREV@	
0	(0)	CHARACTER	16	*	
0	(0)	ADDRESS	8	PFTFQPTR	Forward PFTE queue pointer
0	(0)	UNSIGNED	4	*	
4	(4)	ADDRESS	4	PFTFQPTR31	Forward PFTE queue pointer
8	(8)	ADDRESS	8	PFTBQPTR	Backward PFTE queue pointer
8	(8)	UNSIGNED	4	*	
12	(C)	ADDRESS	4	PFTBQPTR31	Backward PFTE queue pointer
16	(10)	CHARACTER	8	PFTSECTA	PFTE Queue Attributes Section
16	(10)	CHARACTER	4	PFTWORD	
16	(10)	CHARACTER	1	PFTQID	
17	(11)	UNSIGNED	1	*	
17	(11)	UNSIGNED	1	PFTUIC	NUMBER OF UPDATE INTERVALS DURING WHICH FRAME WAS NOT REFERENCED When PftOnAfq this is the FID from when it was freed.
		1111 ....		PFTE_UIC_XID	Process that updated UIC
		1... ....		PFTOLD	This pfte is old
		.... 1111		PFTE_UIC_COUNT	UIC update count
17	(11)	UNSIGNED	1	PFTOLDQID	Residual PftQid when Pfte is freed to AFQ when RSMAD lock is held shared
18	(12)	BITSTRING	1	PFTFLGS2	FLAG BYTE 2 (ALLOCATION FLAGS)
		1... ....		PFTONAFQ	PFTE IS ON AN AFQ
		.1... ....		PFTPERM	FRAME IS BACKING PERMANENT STG
		..1. ....		PFTOFFLN	FRAME IS OFF-LINE
		...1 ....		PFTVIODP	This PFTE contains a VIO dataset page
		.... 1...		PFTVRWT	FRAME IS WAITING FOR V=R ALLOC.
		.... .1..		PFTVRALC	FRAME IS ALLOCATED TO V=R
		.... ..1.		PFTDREF	FRAME IS BACKING A DREF PAGE
		.... ...1		PFTDSPPG	FRAME IS BACKING A DATA SPACE PAGE
19	(13)	BITSTRING	1	PFTFLGS3	FLAG BYTE 3 (MISC. FLAGS)
		1... ....		PFTIOCUR	I/O IS CURRENT FOR THIS FRAME
		.1... ....		PFTGROUPINDICATOR	

Table 32. Structure PFTE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		PFTLARGEPAGEAVAIL	1 = All 256 contiguous Pftes are available to be used as a 1M large frame (This bit is only applicable in the 1st Pfte of the 256 contiguous Pftes)
		.1.. ....		PFTALLOCATEDASPAGEABLE1M	1 = All 256 contiguous PFTEs were obtained for use as a 1M pageable large frame. (This bit is only applicable in the 2nd Pfte of the 256 contiguous Pftes)
		.1.. ....		PFTUPGRADEDTOPAGEABLE1M	1 = All 256 contiguous Pftes are being used as a 1M pageable large frame that was upgraded from a PAGEFRAMESIZE=4K request (This bit is only applicable in the 3rd Pfte of the 256 contiguous Pftes)
		.1.. ....		PFT2GPAGEAVAIL	1 = All 524288 contiguous Pftes are available to be used as a 2G page frame (This bit is only applicable in the 1st Pfte of the 524888 contiguous Pftes)
		.1.. ....		PFTOCTOINDICATOR	1 = All 8 contiguous Pftes are being used as an octo frame (This bit is only applicable in the 1st Pfte of the 8 contiguous Pftes) and only when PFTQID is PFTLQFQN
		..1. ....		PFTVIORU	THIS FRAME IS VIO REUSABLE
		...1 ....		PFTVRINT	FRAME IS V=R INTERCEPTED
		.... 1...		PFTOFINT	FRAME IS OFFLINE INTERCEPTED
		.... .1..		PFTNOREC	INTERCEPTED FRAME SUMMARY BIT- THIS FRAME HAS BEEN INTERCEPTED AND SHOULD NOT BE TAKEN UNLESS IT IS SENT TO AN AVAILABLE FRAME QUEUE. ALSO, THE PAGE ASSOCIATED WITH THE FRAME CANNOT BE REVALIDATED WITH A DIFFERENT FRAME IF A REQUEST FOR THE PAGE IS CURRENTLY ON THE DPQ.
		.... ..1.		PFTIOMC	I/O FOR THIS FRAME MUST COMPLETE INTACT. NEITHER THE FRAME NOR THE DATA MAY BE USED UNTIL THE I/O HAS COMPLETED.
		.... ...1		PFTNCONF	If on, indicates that somebody other than reconfig set the PFTNOREC bit. This bit should be set or cleared when NOREC bit is set or cleared
20	(14)	CHARACTER	4	PFTFCWRD	FIX COUNT WORD. SERIALIZED BY COMPARE AND SWAP. NOTE: PFTFXCT MUST ALWAYS BE THE LOW ORDER HALFWORD OF THIS FIELD FOR ?INC/DECXCT TO WORK.
20	(14)	CHARACTER	1	PFTFREID	ID OF QUEUE TO WHICH THIS PFTE IS TO BE RETURNED WHEN FREED-- 01=>PREFERRED-ABOVE-AFQ 02=>NON-PREFERRED-ABOVE-AFQ 03=>PREFERRED-BELOW-AFQ 04=>NON-PREFERRED-BELOW-AFQ 05=>PREFERRED-HIGH-AFQ 06=>NON-PREFERRED-HIGH-AFQ 07=>NON-PREFERRED-QUAD-AFQ 08=>TOP-DOUBLE-FRAME-QUEUE 09=>BOTTOM-DOUBLE-FRAME-QUEUE 0A=>Large Page Frame Available ID (which includes fixed large frames for PCIE) 0B=>Pageable Large Pref-AFQ 0C=>Dedicated 2G Page Frame-AFQ 0D=>2G Page Frame-AFQ 0E=>Non-Preferred Octo-AFQ FF=>NON-FREEABLE-PFTE

Table 32. Structure PFTE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
21	(15)	BITSTRING	1	PFTFLGS1	FLAG BYTE 1 (PHYSICAL FLAGS). SINCE PFTFCWRD IS DECLARED ABNL, PL/X WILL GENERATE COMPARE AND SWAP INSTRUCTIONS WHEN UPDATING THESE FLAGS.
		1... ....		PFTPREF	PFTE IS FOR PREFERRED AREA
		.1.. ....		PFTBELOW	PFTE IS FOR REAL BELOW 16M
		..1. ....		PFTVR	PFTE IS A V=R CANDIDATE
		...1 ....		PFTHASDATTABLEEXTENSION	Indicates that this frame is either a PGT or SGT and has a corresponding extension frame
		.... 1...		PFTLARGEPAGE	PFTE is part of a pageable or fixed large frame group, set in each PFTE
		.... .1..		PFTSRBSC	SRB HAS BEEN SCHEDULED TO DO FRAME DEALLOCATION.
		.... ..1.		PFTNOUNC	NO UNCORRECTABLE ERRORS HAVE OCCURRED WITHIN THE FRAME. THIS BIT IS MEANINGFUL ONLY WHEN PFTBADFR=1.
		.... ..1.		PFTIOERR	Indicates I/O error for unvirtualized I/O. Only set if PftBadFr is off
		.... ...1		PFTBADFR	BAD FRAME - DO NOT REALLOCATE
22	(16)	SIGNED	2	PFTFXCT	FIX COUNT FOR THIS FRAME. When PftOnAfq is set this is the EP ID of the invoker of MOVEFRAM.
<p>Note: The fix count for a page table should match the number of pages with associated real (valid or with I/O current).  The fix count for a segment table has three cases:  1) For 31-bit: the count is always zero.  2) For 64-bit: the count should match the number of segments with data (both valid and on aux)  3) For data spaces: the count should match the number of 1M pages with data (both valid and on aux) plus the number of page tables with associated real (valid or with I/O current but not including page tables on aux).</p>					
24	(18)	CHARACTER	40	PFTSECTR	PFTE Queue Remaining Section
24	(18)	CHARACTER	4	PFTSER	PFTE SERIALIZATION WORD
RESTRICTION: Only data regarding how this PFTE is serialized should be placed in this fullword!					
24	(18)	BITSTRING	2	PFTSERFL	Flags portion of PftSer
		1... ....		PFTRDS	THIS PFTE IS SERIALIZED BY AN RSMDS LOCK
		.1.. ....		*	Unused as of HBB77B0
		..1. ....		PFTLSQA	FRAME IS BACKING SQA OR LSQA
		...1 ....		PFTMEGAROOED	Shared meg page
		.... 1...		PFTTERM	This is a PFTE that was put on Common's PFQ by termination
		.... .1..		*	Unused as of HBB77B0
		.... ..1.		PFTONCPUAFQ	If on, the pfte is on a cpu related AFQ
		.... ...1		PFTPRECLEARED	The pfte represents a frame that has been cleared to binary zeros
25	(19)	BITSTRING	1	PFTRVTEX	THE RVTE INDEX IF PFTRDS=1
26	(1A)	BITSTRING	2	PFTASID	ASID OF CURRENT OR LAST OWNER
28	(1C)	CHARACTER	8	*	

Table 32. Structure PFTE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
28	(1C)	ADDRESS	8	PFTSDH	ADDRESS OF SHARED DATA HEADER - VALID IF PFTASID= RAB_k31SharedAsid or RAB_k64SharedGroupAsid
28	(1C)	CHARACTER	8	PFTLPID	LPID for the VIO dataset Page
28	(1C)	ADDRESS	8	PFTVSA64	VIRTUAL ADDRESS CURRENTLY OR LAST BACKED BY THIS FRAME. For translation tables for virtual pages above 2G, it will contain the lowest vsa that the table provides translation for, see PFTPGTYP for indicator of table type. E.g., a region 1st table will have PFTVSA64 = 0, an R2 table for 0 to 8P-1 will also have PFTVSA64 = 0, etc.
28	(1C)	UNSIGNED	4	PFTVSAHI	Top half of virtual address. 0 for pages < 2G.
32	(20)	CHARACTER	4	*	
32	(20)	ADDRESS	4	PFTVSA	VIRTUAL ADDRESS CURRENTLY OR LAST BACKED BY THIS FRAME Field maintained for compatibility with prior code supporting virtual < 2G.
32	(20)	ADDRESS	4	PFTLPIDP	Pointer to the LPID for the VIO dataset Page
32	(20)	UNSIGNED	4	PFTVIOA	VIO DATA SET PAGE REUSE ARGUMENT - VALID IF PFTVIORU=1
36	(24)	CHARACTER	4	*	
36	(24)	ADDRESS	4	PFTPCB	ADDRESS OF PCB CURRENTLY BEING USED TO DO I/O FOR THIS FRAME (PFTIOCUR=1) OR PCB LAST USED TO DO THE I/O (PFTIOCUR=0)
36	(24)	BITSTRING	4	PFTMEGAR	Megarooed segment info
36	(24)	BITSTRING	1	PFTSEGNO	Segment number of the segment backed by this Megarooed page table.
37	(25)	.... 1...		*	Reserved
37	(25)	BITSTRING	2	PFTUDSNX	UDS index for the UDD that was source for the Megarooed segment mapped by this page table.
36	(24)	BITSTRING 1... ..	4	PFTE_HVSEGMENTINFO PFTE_DMELIGIBLE	High virtual segment info 4K pages within this segment are eligible to be backed with Dedicated Memory
40	(28)	CHARACTER	4	*	
40	(28)	CHARACTER	4	PFTPROG	DATA SPACE PROGRAMMING WORD. THIS FIELD IS VALID IF PFTDSPG IS ON AND THE FRAME IS NOT ON THE DDFQ.
40	(28)	ADDRESS	4	PFTSPELOCID	Locator of the SPE for the view which obtained this PFTE. Valid if PFTSPAGE=1. Used only for diagnostics.
40	(28)	ADDRESS	4	PFTTCB	ADDRESS OF THE OWNING TCB IF THE FRAME IS ON THE DDFQ
40	(28)	ADDRESS	4	PFTPFTE	Address of the PFTE in the VIO Real Cache that may contain another copy of the data in this frame
40	(28)	CHARACTER	4	PFTALSID	When PFTVIODP=1, the LSID for the auxiliary storage copy of the VIO dataset page
40	(28)	CHARACTER	4	PFTSCMBLOCKID	When PfgPgTyp=7 (unvirtualized data), keeps a copy of the SCM blockid used to prime the frame with

Table 32. Structure PFTE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	CHARACTER	4	PFTATTCTCSWORD	CS word for updating PftAttCt when RSMCM serialization is held shared
44	(2C)	BITSTRING	1	PFTPGTYP	
0 - Virtual Page 1 - VIO Dataset Page 2 - Unvirtualized Page Table 3 - Unvirtualized Segment Table 4 - Region 3rd Table 5 - Region 2rd Table 6 - Region 1rd Table 7 - Unvirtualized data 8 - Pageable page table 9 - Freemained Page (region) A - Freemained Page (high) B - Fixed Large Page					
45	(2D)	BITSTRING	1	PFTFLGS4	FLAG BYTE 4 (MISC. FLAGS)
		1... ....		PFTVRPLT	THIS FRAME IS CURRENTLY POLLUTING THE V=R AREA
		.1.. ....		PFTNOPRF	FRAME SHOULD NOT BE STOLEN BY GETFRAME PREF STEAL
		..1. ....		PFTOKFORAUX	The dataspace frame can be paged to aux even when the address space is marked as critical
		...1 ....		PFTPCIEF	FRAME is PCIE PAGE FIXED
		.... 1...		PFTSECONDARYENTRY	This frame is part of a larger frame
		.... .1..		PFTNOTJOINABLE	Frame represents a DAT table that contains a getmain assigned entry that contains mixed types of storage
		.... ..1.		PFTPARTIAL	Frame represents a partial DAT table
		.... ...1		PFTJOINED	Frame represents a DAT table that is "joined". For multi- frame DAT table types, this is maintained in all 4 frames
46	(2E)	CHARACTER	2	*	Area used for attachment count for translation tables or storage key for non-translation tables.
46	(2E)	UNSIGNED	2	PFTATTCT	Attachment count for translation tables: segment and page tables. For segment table PFTE, number of valid region 3rd entries pointing to this frame. For page table PFTE, number of valid segment table entries pointing to this frame.
46	(2E)	CHARACTER	2	PFTE_STORAGEKEYINFO	
		1... ....		PFTE_KEYSAVED	Indicates key has been saved
		.111 1111		*	Unused
47	(2F)	STRUCTURE IsA(PFTE_TSTORA GEKEY)	1	PFTE_STORAGEKEY	Storage key
		1111 1...		PFTE_STORAGEKEYANDFETCH	
		1111 ....		PFTE_STORAGEKEYKEY	
		.... 1...		PFTE_STORAGEKEYFETCHPROTECT	
		.... .1..		PFTE_STORAGEKEYREFERENCE	
		.... ..1.		PFTE_STORAGEKEYCHANGE	
48	(30)	CHARACTER	8	*	
48	(30)	ADDRESS	8	PFTPTPTR	When PFTPGTYP is a Virtual Page above 2G, this is the real address of the page table entry for the virtual page.

Table 32. Structure PFTE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	BITSTRING	8	PFTPTPTR1	
48	(30)	BITSTRING	7	*	Nonzero address bits
55	(37)	.... .111		PFTSADMPBITS	Always zero in a doubleword aligned PTE address. These bits may be on in a PFTE in a SADMP, so IPCS processing which uses the PTE address must mask them off.
		.... .1..		PFTSADMP	Frame has been dumped by SADMP processing
		.... ..1.		PFTSADZF	Identified as Zero Frame by SADMP processing
		.... ...1		*	Reserved
48	(30)	ADDRESS	8	PFTSTEPTR	When this is a 1M frame, this is the real address of the segment table entry
48	(30)	ADDRESS	8	PFTRTEPTR	When this is a 2G frame, this is the real address of the region table entry
56	(38)	CHARACTER	8	*	
56	(38)	ADDRESS	8	PFTE_PARTIALSPACEDATPFTE@	Address of the partial space DAT table entry in the full DAT PFTE.
56	(38)	ADDRESS	8	PFTE_FULLSPACEDATPFTE@	Address of the full space DAT table entry in the full DAT table entry in the partial DAT PFTE.
56	(38)	ADDRESS	8	PFTE_PEERSPACEDATPFTE@	Address of the peer, either the full or partial space DAT table entry's PFTE.
56	(38)	ADDRESS	8	PFTQHDRPTR	Address of the queue header which anchors the PFTE queue section for pages above 2G. This field valid for ordinary pages above 2G. It is also valid for dataspace queues. Also for available LFAREA queues. Also for buddy system queues.
56	(38)	ADDRESS	8	PFTCPUQPTR	Pointer to the address of the header for the CPU related frame queues
56	(38)	CHARACTER	8	*	
56	(38)	ADDRESS	4	PFTSFTE	SFTE addr for high virtual segment table - NOTE: this is referenced in IAXSP and IAXUZ. Should not be needed since physical swap is disabled
60	(3C)	CHARACTER	4	*	Reserved

Table 33. Structure PFTQHEADER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	PFTQHEADER	Arbitrary PFTE queue header
0	(0)	ADDRESS	8	PFTQHEADERFIRST	Address of first pfte on queue
8	(8)	ADDRESS	8	PFTQHEADERLAST	Address of last pfte on queue

Table 34. Constants for IAXPFTE

Len	Type	Value	Name	Description
4	DECIMAL	64	IAX_KPFTESIZE	Size of Pfte
1	NUMB HEX	90	PFTE_KKEY9	Public key value
1	DECIMAL	0	PFTE_KSIZEEXPNA	



Table 34. Constants for IAXPFTE (continued)

Len	Type	Value	Name	Description
1	DECIMAL	12	PFTE_KSIZEEXP4K	
1	DECIMAL	13	PFTE_KSIZEEXP8K	
1	DECIMAL	14	PFTE_KSIZEEXP16K	
1	DECIMAL	15	PFTE_KSIZEEXP32K	
1	DECIMAL	16	PFTE_KSIZEEXP64K	
1	DECIMAL	17	PFTE_KSIZEEXP128K	
1	DECIMAL	18	PFTE_KSIZEEXP256K	
1	DECIMAL	19	PFTE_KSIZEEXP512K	
1	DECIMAL	20	PFTE_KSIZEEXP1M	
1	DECIMAL	20	PFTE_KSIZEEXPMAX	
Static lookup arrays for size exponents PFTE QUEUE IDS When adding a QID, examine IARQL for possible hits				
1	CHAR HEX	01	PFTPAFQN	PREFERRED ABOVE AFQ
1	CHAR HEX	02	PFTNAFQN	NON-PREFERRED ABOVE AFQ
1	CHAR HEX	03	PFTPBFQN	PREFERRED BELOW AFQ
1	CHAR HEX	04	PFTNBFQN	NON-PREFERRED BELOW AFQ
1	CHAR HEX	05	PFTPHFQN	Preferred High AFQ
1	CHAR HEX	06	PFTNHFQN	Non-Preferred High AFQ
1	CHAR HEX	07	PFTNQFQN	Non-Preferred Quad AFQ. This is set in PftFreId for frames in the quad area as well as pref frames being intercepted by IAXUO's defragmentor or IAXYG's quad frame steal. All frames on the quad holding queue will have this free ID
1	CHAR HEX	08	PFTTDFQN	TOP DOUBLE FRAME QUEUE
1	CHAR HEX	09	PFTBDFQN	BOTTOM DOUBLE FRAME QUEUE
1	CHAR HEX	0A	PFTLPFQN	Large Page available ID - *EXCEPTION*: QID<PFTUNQMK but are unqueued
1	CHAR HEX	0B	PFTPPFQN	Pageable Large Pref AFQ
1	CHAR HEX	0C	PFTE_KDMEM2GAFQN	Dedicated 2G available frame queue
1	CHAR HEX	0D	PFT2PFQN	2G Page available ID
1	HEX	0E	PFTNOFQN	Non-Preferred Octo AFQ
4	DECIMAL	13	PFTE_KMAXAFQQID	Maximum AFQ ID
1	CHAR HEX	21	PFTSFQN	SQA FRAME QUEUE
1	CHAR HEX	22	PFTRSFQN	RESERVED SQA FRAME QUEUE
1	CHAR HEX	23	PFTSBFQN	REAL STG BUFFER FRAME QUEUE
1	CHAR HEX	24	PFTVRFQN	V=R WAITING FRAME QUEUE
1	CHAR HEX	25	PFTGDFQN	General Defer Frame Queue
1	CHAR HEX	26	PFTQSFQN	Single Quad avail q
1	CHAR HEX	27	PFTQHFQN	Quad Holding queue
1	CHAR HEX	28	PFTLSFQN	Single Large frame available queue
1	CHAR HEX	29	PFTPSFQN	Preferred Single Pageable Large frame available queue
1	CHAR HEX	2A	PFTNSFQN	Non Preferred Single Pageable Large frame available queue
1	CHAR HEX	2B	PFTE_KDMEMRPAQN	DMEM RPA available queue
1	CHAR HEX	40	PFTSFFQN	SHARED PAGE FIXED FRAME QUEUE

Table 34. Constants for IAXPFTE (continued)

Len	Type	Value	Name	Description
1	CHAR HEX	41	PFTSPFQN	SHARED PAGE PAGEABLE FRAME QUEUE
1	CHAR HEX	81	PFTPFQN	PAGEABLE FRAME QUEUE
1	CHAR HEX	82	PFTFFQN	FIXED FRAME QUEUE
1	CHAR HEX	83	PFTDFFQN	DEFERRED FREEMAIN FRAME Q
1	CHAR HEX	84	PFTHVFQN	High Virtual Frame Q (for pages between 2G and 16E-1).
1	CHAR HEX	85	PFTLQFQN	Local Quad Frame Q (quad frames for DAT tables describing pages between 2G and 16E-1).
1	CHAR HEX	86	PFTPGTQN	Page Table Frame Q (frames for page tables describing pages between 2G and 16E-1).
1	CHAR HEX	87	PFTLLFQN	Local large page frame queue ID
1	CHAR HEX	88	PFTPLFQN	Pageable large page frame queue ID
1	CHAR HEX	89	PFTL2FQN	Local 2G page frame queue ID
1	CHAR HEX	8A	PFTE_KDMEASSIGNED2GQN	Local dedicated 2G assigned id
1	CHAR HEX	8B	PFTE_KDMEASSIGNEDBUDDYQN	Local dedicated assigned Buddy id
1	CHAR HEX	A1	PFTPDFQN	PAGEABLE DATA SPACE FQ
1	CHAR HEX	A2	PFTDFQN	FIXED DATA SPACE FQ
1	CHAR HEX	A3	PFTDDFQN	DEFERED DELETE FRAME Q
1	CHAR HEX	A4	PFTPDLQN	Pageable large dataspace frame queue ID
1	CHAR HEX	E0	PFTPRFQN	PAGEABLE RDD FRAME Q
1	CHAR HEX	E1	PFTFRFQN	FIXED RDD FRAME QUEUE
1	CHAR HEX	E2	PFTOFQN	ORPHAN FRAME QUEUE
1	CHAR HEX	E7	PFT_KPCIEORPHANQN	UNQUEUED - PCIE orphan frame id
1	CHAR HEX	E8	PFTPF1QN	UNQUEUED - PFT backing PFT CADS dat structure
1	CHAR HEX	E9	PFTPF2QN	UNQUEUED - PFT backing PFT CADS
1	CHAR HEX	EA	PFTREMQN	UNQUEUED - Pft backing the real map
1	CHAR HEX	EB	PFTPMO	UNQUEUED- Frame is in the process of being cleared by an EADM PMSO I/O operation
1	CHAR HEX	F0	PFTDONN	UNQUEUED- DAT-OFF NUCLEUS
1	CHAR HEX	F1	PFTRONN	UNQUEUED- READ ONLY NUC.
1	CHAR HEX	F2	PFTRWNN	UNQUEUED- READ/WRITE NUC.
1	CHAR HEX	F3	PFTIPCN	UNQUEUED- RSM IPCS USE ONLY
1	CHAR HEX	F4	PFTHSAN	UNQUEUED- HW SYSTEM AREA
1	CHAR HEX	F5	PFTAZN	UNQUEUED- ABSOLUTE ZERO FR
1	CHAR HEX	F6	PFTFXAN	UNQUEUED- FIXED LPA
1	CHAR HEX	FB	PFTRPAN	UNQUEUED- Reserved PFTE Area
1	CHAR HEX	FC	PFTSADN	RESERVED FOR STAND ALONE DUMP
1	CHAR HEX	FD	PFTFLAWN	UNQUEUED- PFTE WAS FOUND FLAWED DURING RECOVERY
1	CHAR HEX	FE	PFTUNIN	UNQUEUED- UNINITIALIZED
1	CHAR HEX	FF	PFTUNQDN	UNQUEUED
1	CHAR HEX	FF	PFTNOFRN	WHEN IN THE PFTFREID FIELD - THIS PFTE CANNOT BE FREED
1	CHAR HEX	07	PFTAFQMK	HIGHEST POSSIBLE AVAILABLE FRAME QUEUE ID (not including octo and large AFQs)

Table 34. Constants for IAXPFTE (continued)

Len	Type	Value	Name	Description
1	CHAR HEX	20	PFTRITMK	LOWEST POSSIBLE RIT BASED QUEUE ID (EXCLUDING AFQS AND DOUBLE FRAME QUEUES).
1	CHAR HEX	2F	PFTGLMK	Highest possible queue id for a PFTE serialized by the RSMGL lock.
1	CHAR HEX	80	PFTRABMK	LOWEST POSSIBLE QUEUE ID FOR AN ADDRESS SPACE RELATED QUEUE (RAB, DAB, OR RDD BASED FRAME QUEUE).
1	CHAR HEX	A0	PFTDABMK	LOWEST POSSIBLE QUEUE ID FOR A DAB BASED FRAME QUE
1	CHAR HEX	E0	PFTRDDML	LOWEST POSSIBLE QUEUE ID FOR AN RDD BASED FRAME QUE
1	CHAR HEX	E2	PFTRDDMH	HIGHEST POSSIBLE QUEUE ID FOR AN RDD BASED FRAME QUE
1	CHAR HEX	E7	PFTUNQMK	LOWEST ID POSSIBLE FOR AN UNQUEUED PFTE w/ the exception of PFTLPFQN
PFTE CONSTANTS				
1	HEX	40	PFTLPGIMASK	Mask used to ensure the Large Page Group indicator bits are left alone
1	HEX	FE	PFTKMUIC	MAXIMUM UIC VALUE
1	HEX	FF	PFTKBUIC	UIC VALUE USED TO INDICATE A BLOCKED PAGE THAT HAS NEVER BEEN REFERENCED
0	BIT	1101	PFTE_KUIC_XIDRELEASE	
0	BIT	0000	PFTE_KUIC_COUNTMIN	
0	BIT	1111	PFTE_KUIC_COUNTMAX	
0	BIT	0111	PFTE_KUIC_COUNTINIT	
4	DECIMAL	16777218	KPFTALET	Alet of the CADS dataspace containing the PFT
4	DECIMAL	16777218	PFTALET	Synonym of kPftAlet for compatibility
8	CHARACTER	IARPFT	PFTCADSNAME	Name of dataspace containing PFT
4	DECIMAL	64	PFT_KNUPFTESINPAGE	Number of PFTEs that fit in one 4K page
C0D Abend Reason Codes				
1	HEX	001	PFTE_KC0DBADFREEMAINEDFRAME1	
1	HEX	002	PFTE_KC0DINCONSISTENTFRAME1	
1	HEX	003	PFTE_KC0DINCONSISTENTFRAME2	

Table 35. Cross Reference for IAXPFTE

Name	Offset	Hex Tag
FIRST@	0	
LAST@	8	
NEXT@	0	
PFTALLOCATEDASPAGEABLE1M	13	40
PFTALSID	28	
PFTASID	1A	
PFTATTCT	2E	
PFTATTCTCSWORD	2C	

Table 35. Cross Reference for IAXPFTE (continued)

Name	Offset	Hex Tag
PFTBADFR	15	01
PFTBELOW	15	40
PFTBQPTR	8	
PFTBQPTR31	C	
PFTCPUQPTR	38	
PFTDREF	12	02
PFTDSPPG	12	01
PFTE	0	
PFTE_DMELIGIBLE	24	80
PFTE_FULLSPACEDATPFTE@	38	
PFTE_HVSEGMENTINFO	24	
PFTE_KEYSAVED	2E	80
PFTE_PARTIALSPACEDATPFTE@	38	
PFTE_PEERSPACEDATPFTE@	38	
PFTE_STORAGEKEY	2F	
PFTE_STORAGEKEYANDFETCH	2F	F8
PFTE_STORAGEKEYCHANGE	2F	02
PFTE_STORAGEKEYFETCHPROTECT	2F	08
PFTE_STORAGEKEYINFO	2E	
PFTE_STORAGEKEYKEY	2F	F0
PFTE_STORAGEKEYREFERENCE	2F	04
PFTE_UIC_COUNT	11	0F
PFTE_UIC_XID	11	F0
PFTEQUEUEANCHOR	0	
PFTFCWRD	14	
PFTFLGS1	15	
PFTFLGS2	12	
PFTFLGS3	13	
PFTFLGS4	2D	
PFTFQPTR	0	
PFTFQPTR31	4	
PFTFREID	14	
PFTFXCT	16	
PFTGROUPINDICATOR	13	40
PFTHASDATTABLEEXTENSION	15	10
PFTIOCUR	13	80
PFTIOERR	15	02
PFTIOMC	13	02
PFTJOINED	2D	01

Table 35. Cross Reference for IAXPFTE (continued)

Name	Offset	Hex Tag
PFTLARGEPAGE	15	08
PFTLARGEPAGEAVAIL	13	40
PFTLPID	1C	
PFTLPIDP	20	
PFTLSQA	18	20
PFTMEGAR	24	
PFTMEGAROOED	18	10
PFTNCONF	13	01
PFTNOPRF	2D	40
PFTNOREC	13	04
PFTNOTJOINABLE	2D	04
PFTNOUNC	15	02
PFTOCTOINDICATOR	13	40
PFTOFFLN	12	20
PFTOFINT	13	08
PFTOKFORAUX	2D	20
PFTOLD	11	80
PFTOLDQID	11	
PFTONAFQ	12	80
PFTONCPUAFQ	18	02
PFTPARTIAL	2D	02
PFTPCB	24	
PFTPCIEF	2D	10
PFTPERM	12	40
PFTPFE	28	
PFTPGTYP	2C	
PFTPRECLEARED	18	01
PFTPREF	15	80
PFTPROG	28	
PFTPTEPTR	30	
PFTPTEPTR1	30	
PFTQHDRPTR	38	
PFTQHEADER	0	
PFTQHEADERFIRST	0	
PFTQHEADERLAST	8	
PFTQID	10	
PFTRDS	18	80
PFTRTEPTR	30	
PFTRVTEX	19	

Table 35. Cross Reference for IAXPFTE (continued)

Name	Offset	Hex Tag
PFTSADMP	37	04
PFTSADMPBITS	37	07
PFTSADZF	37	02
PFTSCMBLOCKID	28	
PFTSDH	1C	
PFTSECONDARYENTRY	2D	08
PFTSECTA	10	
PFTSECTP	0	
PFTSECTR	18	
PFTSEGNO	24	
PFTSER	18	
PFTSERFL	18	
PFTSFTE	38	
PFTSPELOCID	28	
PFTSRBSC	15	04
PFTSTEPTR	30	
PFTTCB	28	
PFTTERM	18	08
PFTUDSNX	25	
PFTUIC	11	
PFTUPGRADEDTOPAGEABLE1M	13	40
PFTVIODP	12	10
PFTVIOA	20	
PFTVIOU	13	20
PFTVR	15	20
PFTVRALC	12	04
PFTVRINT	13	10
PFTVRPLT	2D	80
PFTVRWT	12	08
PFTVSA	20	
PFTVSAHI	1C	
PFTVSA64	1C	
PFTWORD	10	
PFT2GPAGEAVAIL	13	40
PREV@	8	

## IAXPTE information

### IAXPTE heading information

<b>Common name:</b>	PAGE TABLE ENTRY
<b>Macro ID:</b>	IAXPTE
<b>DSECT name:</b>	PTE
<b>Owning component:</b>	Real Storage Manager (SC1CR)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Main Storage: YES (for fixed/DREF/High Virtual pages) Virtual Storage: YES (for address space pages) Auxiliary Storage: YES (for pageable pages) Subpool: N/A Key: 0 Data Space: YES (for data space pages) Residency: Anywhere
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	Segment Fault
<b>Pointed to by:</b>	SGT64PTRSA
<b>Serialization:</b>	Varies
<b>Function:</b>	Maps a Page Table Entry

### IAXPTE mapping

Table 36. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Table 37. Structure PTESTART

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PTESTART	
0	(0)	DBL WORD	8	PTEALL	Page RSA
0	(0)	X'4'	0	PTEALL_BYTES4T07	"PTEALL+4,4" Low order portion of RSA
Definition of flag portion of RSA.					
0	(0)	X'6'	0	PTEALL_FLGS	"PTEALL+6,1" Flag portion of RSA
		.... .1..		PTEINV	"X'04'" Page is invalid
ORG to PTEX for this PTE.					
2048	(800)	BITSTRING	1	PTEXEPAGED	Page location ID and subtype
		.... ...1		PTEXGARD	"X'01'" - first reference and garden variety page
2048	(800)	X'8'	0	PTE_LENE	"8" Length of PTE (BUV)

Table 38. Cross Reference for IAXPTE

Name	Offset	Hex Tag
PTE_LENE	800	8
PTEALL	0	
PTEALL_BYTES4T07	0	4
PTEALL_FLGS	0	6
PTEINV	0	4
PTESTART	0	
PTEXEPAGED	800	
PTEXGARD	800	1

## IAXRDD information

### IAXRDD heading information

<b>Common name:</b>	RSM DATA SPACE DESCRIPTOR
<b>Macro ID:</b>	IAXRDD
<b>DSECT name:</b>	RDD
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: Anywhere Auxiliary Storage: N/A Subpool: 255 Key: 0 Data Space: N/A Residency: Anywhere
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	DSPSERV CREATE INITIALIZED BY = DSPSERV CREATE DESTROYED BY = NEVER
<b>Pointed to by:</b>	RVTRDD
<b>Serialization:</b>	RSMDS LOCK (RSM DATA SPACE LOCK)
<b>Function:</b>	THE RDD CONTAINS THE INFORMATION USED TO MANAGE A SINGLE RSM DATA SPACE. DESCRIPTION = FREQUENCY = ONE RDD PER RSM DATA SPACE (RDS)

### IAXRDD mapping

Table 39. Structure RDD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	80	RDD	



Table 39. Structure RDD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	4	RDDID	RDD CONTROL BLOCK ID
4	(4)	CHARACTER	1	*	RESERVED FOR INDEX EXPANSION
5	(5)	CHARACTER	1	RDDRVTEX	RVTE INDEX
6	(6)	CHARACTER	2	*	RESERVED FOR FLAGS
8	(8)	ADDRESS	8	RDDSGT	ADDRESS OF THE SGT FOR THIS RSM DATA SPACE (RDS)
8	(8)	CHARACTER	4	*	
12	(C)	ADDRESS	4	RDDSGT31	
16	(10)	ADDRESS	4	RDDASTE	ADDR OF THE ASTE FOR THIS RDS
ENSURE THAT QUEUE HEADERS ARE NOT ON DOUBLEWORD BOUNDARIES					
20	(14)	ADDRESS	4	RDDFAAQF	POINTER TO THE FIRST ASTE ON THE FREE SCOPE ALL ASTE Q (FAAQ)
24	(18)	ADDRESS	4	RDDFAAQL	POINTER TO THE LAST ASTE ON THE FREE SCOPE ALL ASTE Q (FAAQ)
28	(1C)	ADDRESS	4	RDDFSAQF	POINTER TO THE FIRST ASTE ON THE FREE SCOPE SINGLE ASTE Q (FSAQ)
32	(20)	ADDRESS	4	RDDFSAQL	POINTER TO THE LAST ASTE ON THE FREE SCOPE SINGLE ASTE Q (FSAQ)
36	(24)	ADDRESS	4	RDDFUQF	POINTER TO THE FIRST UDD ON THE FREE UDD QUEUE (FUQ)
40	(28)	UNSIGNED	4	RDDFUAF	ALET FOR THE FIRST UDD ON THE FREE UDD QUEUE (FUQ)
44	(2C)	ADDRESS	4	RDDFUQL	POINTER TO THE LAST UDD ON THE FREE UDD QUEUE
48	(30)	UNSIGNED	4	RDDFUAL	ALET FOR THE LAST UDD ON THE FREE UDD QUEUE (FUQ)
52	(34)	ADDRESS	8	RDDOFQH	Pointer to the header of Orphan Frame Queue (OFQ)
60	(3C)	ADDRESS	8	RDDPRFQH	Pointer to the header of Pageable RDD Frame Queue (PRFQ)
68	(44)	ADDRESS	8	RDDFRFQH	Pointer to the header of Fixed RDD Frame Queue (FRFQ)
76	(4C)	CHARACTER	4	*	Reserved
80	(50)	CHARACTER	0	RDDUBM	THE UBM (UDD BIT MAP) FOR THIS RDS FOLLOWS THE RDD CONTIGUOUSLY IN VIRTUAL. IT SIZE IS DEPENDENT UPON THE RDS TYPE.

Table 40. Cross Reference for IAXRDD

Name	Offset	Hex Tag
RDD	0	
RDDASTE	10	
RDDFAAQF	14	
RDDFAAQL	18	
RDDFRFQH	44	
RDDFSAQF	1C	
RDDFSAQL	20	
RDDFUAF	28	
RDDFUAL	30	

Table 40. Cross Reference for IAXRDD (continued)

Name	Offset	Hex Tag
RDDFUQF	24	
RDDFUQL	2C	
RDDID	0	
RDDOFQH	34	
RDDPRFQH	3C	
RDDRVTEX	5	
RDDSGT	8	
RDDSGT31	C	
RDDUBM	50	

## IAXRDH information

### IAXRDH heading information

<b>Common name:</b>	RSM DATA SPACE HEADER
<b>Macro ID:</b>	IAXRDH
<b>DSECT name:</b>	RDH
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: Yes Auxiliary Storage: N/A Data Space: N/A Residency: Anywhere
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	RSM RIM IARDMRIM INITIALIZED BY = RSM RIM IARDMRIM DESTROYED BY = NEVER
<b>Pointed to by:</b>	RITRDH
<b>Serialization:</b>	(RASP) ADDRESS SPACE LEVEL LOCK
<b>Function:</b>	RSM CONTROL BLOCK TO MANAGE GLOBAL DATA SPACE PROCESSING. DESCRIPTION = FREQUENCY = ONE RDH PER RSM ADDRESS SPACE (RASP)

### IAXRDH mapping

Table 41. Structure RDH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	152	RDH	

Table 41. Structure RDH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	4	RDHID	RDH CONTROL BLOCK ID
4	(4)	CHARACTER	4	*	RESERVED FOR FLAGS
8	(8)	ADDRESS	4	RDHRVT	ADDRESS OF THE RVT
12	(C)	ADDRESS	4	RDHRVTE	ADDRESS OF THE NEXT AVAILABLE RVTE
16	(10)	SIGNED	4	RDH1MCT	NUMBER OF 1M USER DATA SPACE SLOTS CURRENTLY AVAILBLE IN ALL EXISTING RSM DATA SPACES.
20	(14)	SIGNED	4	RDHHGCT	NUMBER OF HALF GIG USER DATA SPACE SLOTS CURRENTLY AVAILBLE IN ALL EXISTING RSM DATA SPACES.
24	(18)	SIGNED	4	RDH2GCT	NUMBER OF 2G USER DATA SPACE SLOTS CURRENTLY AVAILBLE IN ALL EXISTING RSM DATA SPACES.
28	(1C)	CHARACTER	4	*	RESERVED
32	(20)	CHARACTER	40	RDHORGNS(0:2)	RSM DATA SPACE VALUES
32	(20)	ADDRESS	4	RDHOSAST	ORIGIN OF THE SCOPE SINGLE ASTE ARRAY
36	(24)	ADDRESS	4	RDHOLSAS	ORIGIN OF THE LAST POSSIBLE SCOPE SINGLE ASTE IN THE ARRAY
40	(28)	ADDRESS	4	RDHOAAST	ORIGIN OF SCOPE ALL ASTE ARRAY
44	(2C)	ADDRESS	4	RDHOLAAS	ORIGIN OF THE LAST POSSIBLE SCOPE ALL ATSE IN THE ARRAY
48	(30)	ADDRESS	4	RDHOSGT	ORIGIN OF UDS SEGMENT TABLES
52	(34)	ADDRESS	4	RDHOPGT	ORIGIN OF UDS PAGE TABLES
56	(38)	UNSIGNED	4	RDHSTINC	NUMBER OF BYTES FROM THE START OF ONE UDS SEGMENT TABLE TO THE THE START OF THE NEXT
60	(3C)	UNSIGNED	4	RDHNOPGT	NUMBER OF PGTS PER UDS
64	(40)	UNSIGNED	4	RDHUBMCT	NUMBER OF APPLICABLE BITS IN THE UBM. THIS IS EQUIVALENT TO THE NUMBER OF FRAMES NEEDED TO BACK THE MAXIMUM NUMBER OF UDDS FOR THIS RDS. (NOTE, APPLICABLE BITS ARE AT THE HIGH ORDER END OF THE UBM)
68	(44)	UNSIGNED	4	RDHLBTCT	NUMBER OF UDDS IN THE FRAME REPRESENTED BY THE LAST APPLICABLE BIT IN THE UBM
152	(98)	CHARACTER	0	*	KEEP RDH A MULTIPLE OF 8 BYTES

Table 42. Cross Reference for IAXRDH

Name	Offset	Hex Tag
RDH	0	
RDHHGCT	14	
RDHID	0	
RDHLBTCT	44	
RDHNOPGT	3C	
RDHOAAST	28	
RDHOLAAS	2C	
RDHOLSAS	24	
RDHOPGT	34	
RDHORGNS	20	

Table 42. Cross Reference for IAXRDH (continued)

Name	Offset	Hex Tag
RDHOSAST	20	
RDHOSGT	30	
RDHRVT	8	
RDHRVTE	C	
RDHSTINC	38	
RDHUBMCT	40	
RDH1MCT	10	
RDH2GCT	18	

## IAXRSH information

### IAXRSH heading information

<b>Common name:</b>	RSM RECOVERY REFRESH TABLE
<b>Macro ID:</b>	IAXRSH
<b>DSECT name:</b>	RSH
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	RSH Offset: 0 Length: 240 CAUTION = 1. THE OFFSET VALUES TO THE VARIOUS STACK SECTIONS MUST AGREE TO THE CORRESPONDING VALUES SET IN IARMR. 2. THE DATA SPACE DEFAULT VALUES (DBLDF, DMXEX, AND DMXSZ) MUST AGREE WITH THE CORRESPONDING VALUES SET IN IARMR.
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: YES Auxiliary Storage: N/A Subpool: 245, EXTENDED SQA (FIXED COMMON) or Nucleus Key: 0 Data Space: N/A Residency: NUCLEUS
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	IAXMP
<b>Pointed to by:</b>	PVTRSH
<b>Serialization:</b>	RSM
<b>Function:</b>	CONTAINS RSM RECOVERY INFORMATION

### IAXRSH mapping

Table 43. Structure RSH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	292	RSH	

Table 43. Structure RSH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	4	RSHID	RSH CONTROL BLOCK ID
PFT Information					
4	(4)	CHARACTER	4	*	Reserved
8	(8)	ADDRESS	8	RSHPFT	Address of the PFT
16	(10)	ADDRESS	8	RSHLPFTE	Address of last PFTE for central storage
24	(18)	ADDRESS	8	RSHNPFTE	Address of the pfte with the highest address which may be permanently resident
32	(20)	ADDRESS	4	RSHPFTCADSASTE@	Virtual address of the aste for the pft cads
36	(24)	BITSTRING	8	RSHPFTCADSASTRTD	Real address of the RTD for the pft cads
44	(2C)	CHARACTER	4	*	Reserved
48	(30)	ADDRESS	8	RSHOFFLINEPFTERREAL@	Address of the frame containing offline pftes
56	(38)	ADDRESS	8	RSHOFFLINEPAGETABLEREAL@	Address of the Offline Page Table
TBD: Do we need to add other new PFT CADS which are added in RIT					
64	(40)	ADDRESS	4	RSHREALSPACEASTE@	Virtual address of the real space aste
Storage ranges					
68	(44)	ADDRESS	4	RSHCSGT	Address of Common SGT
72	(48)	ADDRESS	4	RSHCPGT	Address of Common PGT
76	(4C)	ADDRESS	4	RSHFVR	Address of First V=R
80	(50)	ADDRESS	4	RSHLVR	Address of Last V=R
84	(54)	ADDRESS	4	RSHFPRV	ADDRESS OF FIRST (LOWEST VSA) PRIVATE AREA PAGE POSSIBLE
88	(58)	ADDRESS	4	RSHFCSA	ADDRESS OF FIRST (LOWEST VSA) CSA PAGE POSSIBLE
92	(5C)	ADDRESS	4	RSHLCSA	ADDRESS OF FIRST PAGE AFTER LAST CSA PAGE
96	(60)	ADDRESS	4	RSHFQSA	ADDRESS OF FIRST (LOWEST VSA) PLPA/PLPA DIRECTORY PAGE
100	(64)	ADDRESS	4	RSHLQSA	ADDRESS OF FIRST PAGE AFTER LAST PLPA/PLPA DIR. PAGE
104	(68)	ADDRESS	4	RSHFQSAX	ADDRESS OF FIRST (LOWEST VSA) EXTENDED PLPA/PLPA DIRECTORY PAGE
108	(6C)	ADDRESS	4	RSHLQSAX	ADDRESS OF FIRST PAGE AFTER LAST EXTENDED PLPA/PLPA DIRECTORY PAGE
112	(70)	ADDRESS	4	RSHFCSAX	ADDRESS OF FIRST (LOWEST VSA) EXTENDED CSA PAGE
116	(74)	ADDRESS	4	RSHFPRVX	ADDRESS OF FIRST (LOWEST VSA) EXTENDED PRIVATE AREA PAGE
Storage Interleave Information					
120	(78)	SIGNED	2	RSHSKIP	SKIP FACTOR (HARDWARE STORAGE INTERLEAVE FACTOR). THIS IS EQUAL TO THE NUMBER OF BANDS IN AN AI.
122	(7A)	CHARACTER	2	*	RESERVED
124	(7C)	ADDRESS	4	RSHAIM	ADDRESS OF THE AIM

Table 43. Structure RSH (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
124	(7C)	ADDRESS	4	RSHFAIME	ADDRESS OF FIRST AIME
128	(80)	ADDRESS	4	RSHLAIME	ADDRESS OF LAST AIME
132	(84)	SIGNED	4	*	Reserved
136	(88)	ADDRESS	4	*	Reserved
136	(88)	ADDRESS	4	*	Reserved
140	(8C)	ADDRESS	4	*	Reserved
144	(90)	ADDRESS	4	*	Reserved
144	(90)	ADDRESS	4	*	Reserved
148	(94)	ADDRESS	4	*	Reserved
152	(98)	ADDRESS	4	*	Reserved
Data Space Information					
156	(9C)	ADDRESS	4	RSHRASCb	ADDRESS OF RASP ASCB
160	(A0)	BITSTRING	4	RSHRAWRD	FULLWORD RASP ASID
160	(A0)	UNSIGNED	2	*	FILLER FOR WORD
162	(A2)	UNSIGNED	2	RSHRASID	ASID OF RASP
164	(A4)	ADDRESS	4	RSHRDH	ADDRESS OF THE RDH
168	(A8)	ADDRESS	4	RSHRVT	ADDR OF THE 1ST RVTE
172	(AC)	SIGNED	4	RSHDSPOR	VIRTUAL STORAGE ORIGIN FOR USER DATA SPACES
176	(B0)	UNSIGNED	4	RSHDBLDF	SYSTEM DEFAULT FOR DEFAULT NUMBER OF BLOCKS ON DSPSERV CREATE.
180	(B4)	UNSIGNED	4	RSHDMXEX	SYSTEM DEFAULT FOR MAXIMUM NUMBER OF USER KEY DATA SPACES FOR AN ADDRESS SPACE.
184	(B8)	UNSIGNED	4	RSHDMXSZ	SYSTEM DEFAULT FOR MAXIMUM NUMBER OF MEGABYTES OF USER KEY DATA SPACES FOR AN ADDRESS SPACE.
Lengths to Stack Sections					
188	(BC)	SIGNED	4	RSHNMLN	Length to start of NORMAL Stack Section
192	(C0)	SIGNED	4	RSHSPLN	Length to start of SPECIAL Stack Section
196	(C4)	SIGNED	4	RSHRCLN	Length to start of RECOVERY Stack Section
200	(C8)	SIGNED	4	RSHRSLN	Length to start of REAL STG BUFFER Stack Section
204	(CC)	SIGNED	4	RSHRRLN	Length to start of RSB RECOVERY Stack Section
208	(D0)	SIGNED	4	RSHMCLN	Length to start of MACHINE CHECK Stack Section
212	(D4)	SIGNED	4	RSHSSLN	Length to start of SPECIAL SRM Stack Section
216	(D8)	SIGNED	4	RSHDFLN	Length to start of DISABLED FAULT Stack Section
220	(DC)	SIGNED	4	RSHDRLN	Length to start of DISABLED FLT RECOV Stack Sect.
224	(E0)	SIGNED	4	RSHCNLN	Length to start of CONVERT Stack Section
228	(E4)	SIGNED	4	RSHHILN	Length to start of Hiperspace Services stack section

Table 43. Structure RSH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
232	(E8)	SIGNED	4	RSHIOLN	Length to start of General I/O Completion stack section
236	(EC)	SIGNED	4	RSHTOTLN	Length of the entire RSM Stack
240	(F0)	UNSIGNED	4	RSH2GBAR	Aritifical High Bar
244	(F4)	UNSIGNED	4	RSHTWICEBAR	Aritifical twice bar
Misc high virtual values					
248	(F8)	CHARACTER	8	RSHLVSHRSTRT	Start of high virtual shared area
256	(100)	CHARACTER	8	RSHLVHPRSTRT	Start of high virtual high private area
264	(108)	CHARACTER	8	RSHHVCOMMONSTRT	Start of high virtual common area
272	(110)	CHARACTER	8	RSHHVCOMMONEND	End of high virtual common area
Length to DSPSERV stack section					
280	(118)	SIGNED	4	RSHDSLNL	Length to start of disabled DSPSERV stack section
284	(11C)	ADDRESS	8	RSH_NONDMEMPLPFTE	Pointer to last NON-DMEM PFTE

Table 44. Cross Reference for IAXRSH

Name	Offset	Hex Tag
RSH	0	
RSH_NONDMEMPLPFTE	11C	
RSHAIM	7C	
RSHCNLN	E0	
RSHCPGT	48	
RSHCSGT	44	
RSHDBLDF	B0	
RSHDFLN	D8	
RSHDMXEX	B4	
RSHDMXSZ	B8	
RSHDRLN	DC	
RSHDSLNL	118	
RSHDSPOR	AC	
RSHFAIME	7C	
RSHFCSA	58	
RSHFCSAX	70	
RSHFPRV	54	
RSHFPRVX	74	
RSHFQSA	60	
RSHFQSAX	68	
RSHFVR	4C	
RSHHILN	E4	

Table 44. Cross Reference for IAXRSH (continued)

Name	Offset	Hex Tag
RSHHVCOMMONEND	110	
RSHHVCOMMONSTR	108	
RSHID	0	
RSHIOLN	E8	
RSHLAIME	80	
RSHLCSA	5C	
RSHLPFTE	10	
RSHLQSA	64	
RSHLQSAX	6C	
RSHLVHPRSTR	100	
RSHLVR	50	
RSHLVSHRSTR	F8	
RSHMCLN	D0	
RSHNMLN	BC	
RSHNPFTE	18	
RSHOFFLINEPAGETABLEREAL@	38	
RSHOFFLINEPFTEREAL@	30	
RSHPFT	8	
RSHPFTCADSASTE@	20	
RSHPFTCADSASTRTD	24	
RSHRASC	9C	
RSHRASID	A2	
RSHRAWRD	A0	
RSHRCLN	C4	
RSHRDH	A4	
RSHREALSPACEASTE@	40	
RSHRRLN	CC	
RSHRSLN	C8	
RSHRVT	A8	
RSHSKIP	78	
RSHSPLN	C0	
RSHSSLN	D4	
RSHTOTLN	EC	
RSHTWICEBAR	F4	
RSH2GBAR	F0	



## IAXRVTE information

### IAXRVTE heading information

<b>Common name:</b>	RSM DATA VECTOR TABLE ENTRY
<b>Macro ID:</b>	IAXRVTE
<b>DSECT name:</b>	RVTE
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Main Storage: Anywhere Virtual Storage: Anywhere Auxiliary Storage: YES DATASPACE = N/A Subpool: 255 Key: 0 Residency: LSQA
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	RSM RIM IARDMRIM INITIALIZED BY = DSPSERV CREATE DESTROYED BY = NEVER
<b>Pointed to by:</b>	RDHRVTE
<b>Serialization:</b>	(RASP) ADDRESS SPACE LEVEL LOCK
<b>Function:</b>	AN RVTE IS AN ENTRY IN THE RVT AND CONTAINS INFORMATION PERTAINING TO A SINGLE RSM DATA SPACE. DESCRIPTION = FREQUENCY = ONE RVTE PER RSM DATA SPACE (RDS)

### IAXRVTE mapping

Table 45. Structure RVTE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	24	RVTE	
0	(0)	UNSIGNED	1	RVTTYPE	RSM DATA SPACE (RDS) TYPE
1	(1)	BITSTRING	1	RVTF LG1	FLAG BYTE
		1... ..		RVTF LAWD	THIS RDS IS FLAWED (A FLAWED RDS IS EITHER IN THE STATE OF BEING CREATED OR IT IS RETIRED).
		.1... ..		RVTRDSFL	THIS BIT INDICATES THE DEGREE OF DAMAGE IN A FLAWED RDS. IF ON, THEN RECOVERY HAS DETECTED MAJOR DAMAGE TO THE RDS CONTROL BLOCK STRUCTURE AND NO PART OF THE RDS IS USABLE.
		..1. ....		RVTCIP	THIS RDS IS IN THE PROCESS OF BEING CREATED
		...1 1111		*	RESERVED FOR FLAGS
2	(2)	CHARACTER	2	*	RESERVED FOR FLAGS

Table 45. Structure RVTE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	ADDRESS	4	RVTRDD	ADDRESS OF THE RDD FOR THIS RDS (IF EQUAL TO KRVTEAVL, THEN THIS RVTE HAS NEVER BEEN USED AND IS AVAILABLE TO BE ASSIGNED TO A NEW RDS)
8	(8)	UNSIGNED	4	RVTALET	ALET FOR THIS RDS
12	(C)	SIGNED	4	RVTSLOTS	NUMBER OF USER DATA SPACE SLOTS CURRENTLY AVAILABLE IN THIS RDS
16	(10)	SIGNED	4	RVTNXSQN	NEXT USER DATA SPACE SEQUENCE NO. (THIS RDS IS RETIRED IF THE NEXT SEQUENCE NUMBER IS ZERO AND THE RDD ADDRESS IN RVTRDD IS NOT EQUAL TO KRVTEAVL)
20	(14)	CHARACTER	4	*	RESERVED
24	(18)	CHARACTER	0	RVTEEND	KEEP RVTE A MULTIPLE OF 8 BYTES - Added Name

Table 46. Constants for IAXRVTE

Len	Type	Value	Name	Description
1	HEX	00	KRDS1M	1M RDS TYPE
1	HEX	01	KRDSHG	HALF GIG RDS TYPE
1	HEX	02	KRDS2G	2G RDS TYPE
CONSTANT FOR RVTRDD FIELD WHEN AN RVTE HAS NEVER BEEN USED				
4	HEX	000CABAF	KRVTEAVL	UNUSED RVTE CONSTANT

Table 47. Cross Reference for IAXRVTE

Name	Offset	Hex Tag
RVTALET	8	
RVTCIP	1	20
RVTE	0	
RVTEEND	18	
RVTFLAWD	1	80
RVTFLG1	1	
RVTNXSQN	10	
RVTRDD	4	
RVTRDSFL	1	40
RVTSLOTS	C	
RVTTYPE	0	

## IAXSERVC information

### IAXSERVC programming interface information

IAXSERVC is a programming interface.

### IAXSERVC heading information

**Common name:** RSM Service Return/Reason code constants

**Macro ID:** IAXSERVC  
**DSECT name:** None  
**Owning component:** Real Storage Manager (SCIAR)  
**Eye-catcher ID:** NONE  
**Storage attributes:** Subpool: N/A  
 Key: N/A  
 Residency: Caller-supplied  
  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None required  
**Function:** Provide equates for return and reason codes.

## IAXSERVC mapping

Table 48. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IAXSERVC_1; Note carefully that bits 0-15 of the reason code or abend reason code may contain component-diagnostic data and must not be assumed to be 0.					
0	(0)	BITSTRING	0	IARCP64RSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the reason code.
IARCP64 Return and Reason Code definitions					
		.... ..		IARCP64RC_OK	"X'00000000'" Meaning: IARCP64 request successful. Action: None required.
		.... .1..		IARCP64RC_WARN	"X'00000004'" Meaning: Warning Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IARCP64RSNGETOUTOFCELLS	"X'00040000'" Meaning: The request to the IARCP64 GET service specified EXPAND=NO and the current extent is out of cells. Action: Either change the request to specify EXPAND=YES or write logic to deal with no cell being available.
		.... 1...		IARCP64RC_FAIL	"X'00000008'" Meaning: Service failed due to running out of resources Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IARCP64RSNMEMLIMITEXHAUSTED	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00040100'" Meaning: The request to either the IARCP64 BUILD, IARCP64 GET when the pool is being expanded or the IARST64 GET when a new extent is required was not able to obtain private storage due to the address space MEMLIMIT. Action: Either raise the MEMLIMIT of the address space or determine if private storage is being consumed excessively somewhere. Authorized callers can specify MEMLIMIT=NO on the IARCP64 BUILD to bypass the address space limit checking.
0	(0)	BITSTRING	0	IARCP64RSN64BITCOMMONEXHAUSTED	
					"X'00040200'" Old name for IARCP64RsnInsuffi cientFreeSpace
0	(0)	BITSTRING	0	IARCP64RSNINSUFFICIENTFREESPACE	
					"X'00040200'" Meaning: The request to either the IARCP64 BUILD, IARCP64 GET when the pool is being expanded or the IARST64 GET when a new extent is required was not able to obtain storage due to there being insufficient free storage to satisfy the request. Action: For common storage, either raise the system limit on common (HVCOMMON) or determine if common storage is being consumed excessively somewhere.
0	(0)	BITSTRING	0	IARCP64RSNMEMLIMITZERO	
					"X'00040300'" Meaning: The request to IARCP64 BUILD was not able to obtain private storage due to the address space MEMLIMIT being set to zero. Action: Either set the MEMLIMIT of the address space to a non-zero value or if authorized, specify MEMLIMIT=NO on the IARCP64 BUILD call to tell the service to bypass the address space MEMLIMIT.
End of IARCP64 Return and Reason Code definitions					
0	(0)	BITSTRING	0	IARST64RSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the reason code.
IARST64 Return and Reason Code definitions					
		.... ....		IARST64RC_OK	"X'00000000'" Meaning: IARST64 request successful. Action: None required.
		.... 1...		IARST64RC_FAIL	"X'00000008'" Meaning: Service failed due to running out of resources Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IARST64RSNMEMLIMITEXHAUSTED	
					"X'00040100'" Meaning: The request to the IARST64 GET service was not able to obtain storage due to address space limits. Action: Either raise the MEMLIMIT of the address space or determine if private storage is being consumed excessively somewhere. Authorized callers can specify MEMLIMIT=NO on the IARCP64 BUILD to bypass the address space limit checking.

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IARST64RSN64BITCOMMONEXHAUSTED	"X'00040200'" Meaning: The request to the IARST64 GET service was not able to obtain storage due to system limits. Action: For common storage, either raise the system limit on common (HVCOMMON) or determine if common storage is being consumed excessively somewhere.
0	(0)	BITSTRING	0	IARST64RSNMEMLIMITZERO	"X'00040300'" Meaning: The request to IARST64 GET was not able to obtain private storage due to the address space MEMLIMIT being set to zero. Action: Either set the MEMLIMIT of the address space to a non-zero value or if authorized, specify MEMLIMIT=NO on the IARST64 GET call to tell the service to bypass the address space MEMLIMIT.
0	(0)	BITSTRING	0	IARST64RSNLOCKING	"X'00040400'" Meaning: The request to IARST64 BUILD/GET was unable to obtain common storage because the invoker holds a lock that prevents creation/expansion of the cellpool. This reason code is not part of the programming interface. Action: None
End of IARST64 Return and Reason Code definitions					
0	(0)	BITSTRING	0	IARCP64ABENDRSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the abend reason code.
IARCP64 Abend Reason Code definitions					
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLADDRLOW	"X'00041000'" Meaning: The cell address passed to the IARCP64 FREE service is within a meg used for storage pools, but the address is less than the address of the 1st usable storage address. Action: Correct the address passed to IARCP64 FREE, making sure it is the same address that was returned from IARCP64 GET.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDMOTHERFROMCMRO	"X'00041200'" Meaning: The OWNINGTASK was specified as the mother task, but the caller is running on the CMRO task. This is not supported. Action: Correct the specification of OWNINGTASK. If you need the storage to survive job step termination, then specify RCT as the owner. If you are unauthorized, use OWNINGTASK set to either CMRO or JOBSTEP.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLNOTINEXTENT	"X'00041300'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in, is not within the bounds of a cell pool. Action: Correct the address passed to IARCP64 FREE or IARST64 FREE, making sure it is the same address that was returned from IARCP64 GET or IARST64 GET.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDNOTRCTORCMRO	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDCELLSIZEZERO	"X'00041400'" Meaning: The parameter list passed to the IARCP64 BUILD service from an SRB or cross memory environment did not specify RCT or CMRO as the owning task. Action: Fix the OWNINGTASK parameter to specify RCT or CMRO. Alternatively, build the pool from a different environment.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDNOTAUTH	"X'00041500'" Meaning: The parameter list passed to the IARCP64 BUILD service specified the CELLSIZE as zero. Action: Change the cell size to be in the range of 1 to 520,192.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDCELLSIZEETOOBIG	"X'00041600'" Meaning: The parameter list passed to the IARCP64 BUILD service from an unauthorized caller requested an authorized option. System key, common storage, RCT ownership, MEMLIMIT=NO, MOTKN, TYPE=FIXED or DREF. Action: Either correct the environment such that the caller is authorized or change the options on IARCP64 BUILD such that it does not request options requiring authorization.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDKEYNOT9	"X'00041700'" Meaning: The parameter list passed to the IARCP64 BUILD service specified a cell size larger than the maximum size supported. Action: Specify a size between 1 and 520,192. If a larger storage area is needed, consider using IARV64 REQUEST=GETSTOR or GETCOMMON.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLOVERRUN	"X'00041800'" Meaning: The parameter list passed to the IARCP64 BUILD service from an unauthorized caller, specified a storage key other than 9. Action: Either remove the key specification for an unauthorized caller, specify key 9 or change the program to run in an authorized environment.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLNOTINUSE	"X'00041900'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the trailer data at the end of the cell was detected as being overrun. If the overrun is sufficiently large, it will cause damage to the following cell. The caller is abended so they can fix the code to not use more storage than is requested. Action: Determine whether the storage has been overrun or whether the trailer data was overlaid by some other code. Fix the code so it only uses the amount of storage requested. Possibly increase the cell size to meet the program's needs.

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"X'00041A00'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in, is already in the freed state. This will happen when an application frees the storage twice. Action: Determine whether the current application is freeing the storage twice or whether it is using a cell that some other program is freeing twice.
0	(0)	BITSTRING	0	IARCP64ABENDRSNNOTONCELLBOUNDARY	
					"X'00041B00'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in is not on a cell boundary in the cell pool from which the GET request was satisfied. Action: Correct the address passed to IARCP64 FREE, making sure it is the same address that was returned from IARCP64 GET.
0	(0)	BITSTRING	0	IARCP64ABENDRSNIARV64ERROR	
					"X'00041C00'" Meaning: During processing of IARCP64 BUILD or GET, a call to the IARV64 service for GETSTOR, GETCOMMON, PAGEFIX or PROTECT failed. The failing return code from IARV64 was placed in register 2 prior to the abend. The failing reason code from IARV64 was placed in register 3 prior to the abend. Action: Examine the return and reason code as documented under IARV64 to determine if the problem is one that you can resolve.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLPOOLHEADERKEYNOT0	
					"X'00041D00'" Meaning: The cell pool header points to a key 0 control block used to protect cell pool information. The pointer did not point to key 0 storage. This would happen if a caller tried to trick the service into getting storage that the user was not normally allowed to get. Action: Correct the cell pool address passed to IARCP64 GET, making sure it is the same address that was returned from IARCP64 BUILD. Do not modify the cell pool header, other than through IARCP64 services.
0	(0)	BITSTRING	0	IARCP64ABENDRSNHEADERFAILEDVALIDITYCHECK	
					"X'00041E00'" Meaning: The cell pool header points to a key 0 control block used to protect cell pool information. The pointer did not point to a valid structure used by IARCP64. This would happen if a caller tried to trick the service into getting storage that the user was not normally allowed to get. Action: Correct the cell pool address passed to IARCP64 GET, making sure it is the same address that was returned from IARCP64 BUILD.
0	(0)	BITSTRING	0	IARCP64ABENDRSNHEADERDAMAGED	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00041F00'" Meaning: The cell pool header authorized area was damaged. This could be caused by a storage overlay or by a user deleting a cell pool while other work units are trying to obtain a cell from the pool. Action: Make sure the application does not request cells during or after the cell pool is deleted.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCPHANNOTQUEUED	
					"X'00042000'" Meaning: The cell pool header authorized area was not queued to the owning task as expected. This could happen due to storage overlays, or possibly the user doing IARCP64 DELETE while the pool was still in use. Action: Make sure the application does not request cells during or after the cell pool is deleted. If the problem persists, collect a dump and contact IBM service.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDVERSIONHIGH	
					"X'00042100'" Meaning: The parameter list passed to the IARCP64 BUILD service has a version level higher than the current implementation can support. Action: Correct the invocation of IARCP64 such that you don't specify a level or use parameters that are not supported on the release of the operating system on which it is intended to run.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDBADPARMLIST	
					"X'00042200'" Meaning: The parameter list passed to IARCP64 BUILD is not addressable in the caller's key or is not valid storage. Action: Correct the calling program to place the parameter list in storage addressable in the primary address space.
0	(0)	BITSTRING	0	IARCP64ABENDRSNBUILDNOOWNER	
					"X'00042300'" Meaning: The parameter list passed to the IARCP64 BUILD service for a common cell pool does not have an owner option specified. Action: Add the OWNER keyword to the invocation of IARCP64 BUILD when building a cell pool in common.
0	(0)	BITSTRING	0	IARCP64ABENDRSNDELETENOTCHAINED	
					"X'00042400'" Meaning: A request was made to the IARCP64 DELETE service for a user key cell pool. The control information for this cell pool was missing from the system queue used to maintain it. This can only happen if the caller has 2 tasks racing to delete the same cell pool. Action: Fix the application cleanup logic so that the cell pool is only deleted once.
0	(0)	BITSTRING	0	IARCP64ABENDRSNPOOLNOTINCALLERKEY	



Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"X'00042500'" Meaning: The request to IARCP64 GET or DELETE was against a pool that was not in the key of the caller. Action: You must be in a key that has the ability to modify the pool storage for the request to be processed.
0	(0)	BITSTRING	0	IARCP64ABENDRSNPRIMARYEXTENTOVERLAID	
					"X'00042600'" Meaning: The request to IARST64 or IARCP64 GET was against a storage pool where the primary extent control information has been overlaid. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARCP64ABENDRSNSECONDARYEXTENTOVERLAID	
					"X'00042700'" Meaning: The request to IARST64 or IARCP64 GET was against a storage pool where the secondary extent control information has been overlaid. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARCP64ABENDRSNUNEXPECTEDERROR	
					"X'00042800'" Meaning: During processing of IARCP64 BUILD, DELETE or the cell pool expansion on a GET, an unexpected abend occurred. An SDUMP should have been generated. Action: Collect the dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARCP64ABENDRSNFREEBADPARMLIST	
					"X'00042900'" Meaning: During processing of IARCP64 FREE a cell in a 2G extent was specified, but INPUT_CPID was not provided on the invocation. Action: Collect the dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARCP64ABENDRSNVALIDATIONERROR	
					"X'00052A00'" Meaning: The call to the IARCP64 GET service detected a validation error when locating the storage pool to be used. Possible cause is storage overlay of the storage pool control block in the caller's key. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARCP64ABENDRSNCELLLT4GIG	
					"X'00052C00'" Meaning: The call to the IARCP64 or IARST64 FREE service was passed a cell address less than 4 Gig, so it can't possibly be a valid cell address in a 64 bit cell pool. Action: Only pass a storage address that was obtained with IARCP64 or IARST64 GET.
End of IARCP64 Abend Reason Code definitions					
0	(0)	BITSTRING	0	IARST64ABENDRSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the abend reason code.
IARST64 Abend Reason Code definitions					

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IARST64ABENDRSNCELLADDRLOW	"X'00041000'" Meaning: The storage address passed to the IARST64 FREE service is within a meg used for storage pools, but the address is less than the address of the 1st usable storage address. Action: Correct the address passed to IARST64 FREE, making sure it is the same address that was returned from IARST64 GET.
0	(0)	BITSTRING	0	IARST64ABENDRSNKEYGT7COMMON	"X'00051100'" Meaning: The request to IARST64 GET was for common storage, but the requested or caller key was greater than key 7. You cannot allocate common storage in key 8 or above. Action: Correct the key passed to IARST64 GET or change your request to get private storage.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETMOTHERFROMCMRO	"X'00051200'" Meaning: The request was to the IARST64 GET service and specified OWNINGTASK(MOTHER), but the caller is running on the CMRO task. You can't request the mother task be the storage owner from the CMRO task. Action: Either specify CMRO as the owner or specify RCT if you want the storage to persist across termination of the CMRO.
0	(0)	BITSTRING	0	IARST64ABENDRSNCELLNOTINEXTENT	"X'00041300'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in, is not within the bounds of a cell pool. Action: The address passed to IARST64 REQUEST=FREE must be the same as the address obtained from IARST64 REQUEST=GET.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETNOTRCTORCMRO	"X'00051400'" Meaning: The request was to the IARST64 GET service for private storage and the caller was running in cross memory mode or SRB mode. In these environments the OWNINGTASK parameter must be set to RCT or CMRO. Neither of these was specified, so the request is failed. Action: Specify the OWNINGTASK parameter as RCT or CMRO.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETCELLSIZEZERO	"X'00051500'" Meaning: The request was to the IARST64 GET service and specified a length of zero. Action: Specify a length between 1 and 128K.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETNOTAUTH	"X'00051600'" Meaning: The request was to the IARST64 GET service and specified a parameter that requires the caller to be running in key 0-7. The caller is not authorized to use authorized options of COMMON, DREF, FIXED, OWNINGTASK(RCT), CALLERKEY(NO) and Key00ToF0 set to a system key. Action: Either run the code in key 0-7 or do not use authorized options.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETCELLSIZETO0BIG	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00051700'" Meaning: The request was to the IARST64 GET service and specified a length greater than 128K. Action: Specify a size between 1 and 128K. If larger storage is needed, consider using IARCP64 or IARV64 GETSTOR or GETCOMMON.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETKEYNOT9	"X'00051800'" Meaning: The request was to the IARST64 GET service and specified a CALLERKEY(NO) and a value for Key00ToF0 that was not key 9 and the caller is not authorized. Action: The only key that an unauthorized user can specify is key 9. Either request key 9 or change the specification to CALLERKEY(YES).
0	(0)	BITSTRING	0	IARST64ABENDRSNCELLOVERRUN	"X'00041900'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the trailer data at the end of the cell was detected as being overrun. If the overrun is sufficiently large, it will cause damage to the following cell. The caller is abended so they can fix the code to not use more storage than is requested. Action: Determine whether the storage has been overrun or whether the trailer data was overlaid by some other code. Fix the code so it only uses the amount of storage requested.
0	(0)	BITSTRING	0	IARST64ABENDRSNCELLNOTINUSE	"X'00041A00'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in, is already in the freed state. This will happen when an application frees the storage twice. Action: Determine whether the current application is freeing the storage twice or whether it is using a cell that some other storage is freeing twice.
0	(0)	BITSTRING	0	IARST64ABENDRSNNOTONCELLBOUNDARY	"X'00041B00'" Meaning: The request was to the IARCP64 or IARST64 FREE service and the address of the storage passed in is not on a cell boundary in the cell pool from which the GET request was satisfied. Action: When freeing storage with IARST64 REQUEST=FREE, make sure to specify the address that was returned by IARST64 REQUEST=GET.
0	(0)	BITSTRING	0	IARST64ABENDRSNIARV64ERROR	"X'00041C00'" Meaning: During processing of IARST64 GET, a call to the IARV64 service for GETSTOR, GETCOMMON, PAGEFIX or PROTECT failed. The failing return code from IARV64 was placed in register 2 prior to the abend. The failing reason code from IARV64 was placed in register 3 prior to the abend. Action: Examine the return and reason code as documented under IARV64 to determine if the problem is one that you can resolve.
0	(0)	BITSTRING	0	IARST64ABENDRSNCPHANNOTQUEUE	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00042000" Meaning: The cell pool header authorized area was not queued to the owning task as expected. This could happen due to storage overlays or the caller bypassing the IARST64 macro and PCing directly to the service with incorrect input parameters. Action: Make sure the application is using the IARST64 macro to request storage. If the problem persists, collect a dump and contact IBM service.
0	(0)	BITSTRING	0	IARST64ABENDRSNPOOLNOTINCALLERKEY	
					"X'00042500" Meaning: The request to IARST64 GET was against a storage pool that was not in the key of the caller. Normally this will abend with an 0C4, but if the pool is out of cells and is in storage that is not fetch protected, the pool expand routine verifies that the caller is allowed to modify this storage pool. Action: You must be in a key that has the ability to modify the pool storage for the request to be processed.
0	(0)	BITSTRING	0	IARST64ABENDRSNPRIMARYEXTENTOVERLAID	
					"X'00042600" Meaning: The request to IARST64 or IARCP64 GET was against a storage pool where the primary extent control information has been overlaid. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARST64ABENDRSNSECONDARYEXTENTOVERLAID	
					"X'00042700" Meaning: The request to IARST64 or IARCP64 GET was against a storage pool where the secondary extent control information has been overlaid. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARST64ABENDRSNUNEXPECTEDERROR	
					"X'00042800" Meaning: During processing of IARST64 GET an unexpected abend occurred. An SDUMP should have been generated. Action: Collect the dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARST64ABENDRSNGETSIZEETOOBIG	
					"X'00052900" Meaning: The call to the IARST64 GET service specified a cell size larger than the maximum size supported. Action: Specify a size between 1 and 128K. If a larger storage area is needed, consider using IARCP64 or IARV64 REQUEST=GETSTOR or GETCOMMON.
0	(0)	BITSTRING	0	IARST64ABENDRSNVALIDATIONERROR	
					"X'00052A00" Meaning: The call to the IARST64 GET service detected a validation error when locating the storage pool to be used. Possible cause is storage overlay of the storage pool control block in the caller's key. Action: Collect a dump and report the problem to IBM.
0	(0)	BITSTRING	0	IARST64ABENDRSNMEMLIMITNOUNAUTH	

Table 48. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00052B00'" Meaning: The call to the IARST64 GET service requested MEMLIMIT=NO, but is running unauthorized (key 8-15 and problem program state). Action: Either specify MEMLIMIT=YES or call from an authorized environment.
0	(0)	BITSTRING	0	IARST64ABENDRSNCELLLT4GIG	"X'00052C00'" Meaning: The call to the IARCP64 or IARST64 FREE service was passed a cell address less than 4 Gig, so it can't possibly be a valid cell address in a 64 bit cell pool. Action: Only pass a storage address that was obtained with IARCP64 or IARST64 GET.
0	(0)	BITSTRING	0	IARST64ABENDRSNLOCALSYSAREAYESUNAUTH	"X'00052D00'"
Meaning: The call to the IARST64 GET service requested LOCALSYSAREA=YES, but is running unauthorized (key 8-15 and problem program state). Action: Either specify LOCALSYSAREA=NO or CALL from an authorized environment.					
0	(0)	BITSTRING	0	IARST64ABENDRSNKEYGT7	"X'00052E00'" Meaning: An IARST64 GET service requested private storage, with CALLERKEY(NO) and Key00ToF0 greater than key 7 when the callerkey was less than key 8. An authorized caller can't request unauthorized storage. Action: Correct the key of the requested storage or change the caller key.

Table 49. Cross Reference for IAXSERVC

Name	Offset	Hex Tag
IARCP64ABENDRSNBUILDBADPARMLIST	0	42200
IARCP64ABENDRSNBUILDCELLSIZE00BIG	0	41700
IARCP64ABENDRSNBUILDCELLSIZEZERO	0	41500
IARCP64ABENDRSNBUILDKEYNOT9	0	41800
IARCP64ABENDRSNBUILDOTHERFROMCMRO	0	41200
IARCP64ABENDRSNBUILDNOOWNER	0	42300
IARCP64ABENDRSNBUILDNOTAUTH	0	41600
IARCP64ABENDRSNBUILDNOTRCTORCMRO	0	41400
IARCP64ABENDRSNBUILDVERSIONHIGH	0	42100
IARCP64ABENDRSNCELLADDRLOW	0	41000
IARCP64ABENDRSNCELLLT4GIG	0	52C00
IARCP64ABENDRSNCELLNOTINEXTENT	0	41300
IARCP64ABENDRSNCELLNOTINUSE	0	41A00
IARCP64ABENDRSNCELLOVERRUN	0	41900
IARCP64ABENDRSNCELLPOOLHEADERKEYNOT0	0	41D00
IARCP64ABENDRSNCODEMASK	0	FFFF00
IARCP64ABENDRSNCPHANOTQUEUED	0	42000
IARCP64ABENDRSNDELETONOTCHAINED	0	42400

Table 49. Cross Reference for IAXSERVC (continued)

Name	Offset	Hex Tag
IARCP64ABENDRSNFREEBADPARMLIST	0	42900
IARCP64ABENDRSNHEADERDAMAGED	0	41F00
IARCP64ABENDRSNHEADERFAILEDVALIDITYCHECK	0	41E00
IARCP64ABENDRSNIARV64ERROR	0	41C00
IARCP64ABENDRSNNOTONCELLBOUNDARY	0	41B00
IARCP64ABENDRSNP00LNOTINCALLERKEY	0	42500
IARCP64ABENDRSNPRIMARYEXTENTOVERLAID	0	42600
IARCP64ABENDRSNSECONDARYEXTENTOVERLAID	0	42700
IARCP64ABENDRSNUNEXPECTEDERROR	0	42800
IARCP64ABENDRSNVALIDATIONERROR	0	52A00
IARCP64RC_FAIL	0	8
IARCP64RC_OK	0	0
IARCP64RC_WARN	0	4
IARCP64RSNCODEMASK	0	FFFF00
IARCP64RSNGETOUTOFCELLS	0	40000
IARCP64RSNINSUFFICIENTFREESPACE	0	40200
IARCP64RSNMEMLIMITEXHAUSTED	0	40100
IARCP64RSNMEMLIMITZERO	0	40300
IARCP64RSN64BITCOMMONEXHAUSTED	0	40200
IARST64ABENDRSNCELLADDRLOW	0	41000
IARST64ABENDRSNCELLLT4GIG	0	52C00
IARST64ABENDRSNCELLNOTINEXTENT	0	41300
IARST64ABENDRSNCELLNOTINUSE	0	41A00
IARST64ABENDRSNCELLOVERRUN	0	41900
IARST64ABENDRSNCODEMASK	0	FFFF00
IARST64ABENDRSNCPHANTOQUEUE	0	42000
IARST64ABENDRSNGETCELLSIZETOOBIG	0	51700
IARST64ABENDRSNGETCELLSIZEZERO	0	51500
IARST64ABENDRSNGETKEYNOT9	0	51800
IARST64ABENDRSNGETMOTHERFROMCMRO	0	51200
IARST64ABENDRSNGETNOTAUTH	0	51600
IARST64ABENDRSNGETNOTRCTORCMRO	0	51400
IARST64ABENDRSNGETSIZETOOBIG	0	52900
IARST64ABENDRSNIARV64ERROR	0	41C00
IARST64ABENDRSNKEYGT7	0	52E00
IARST64ABENDRSNKEYGT7COMMON	0	51100
IARST64ABENDRSNLOCALSYSAREAYESUNAUTH	0	52D00
IARST64ABENDRSNMEMLIMITNOUNAUTH	0	52B00
IARST64ABENDRSNNOTONCELLBOUNDARY	0	41B00

Table 49. Cross Reference for IAXSERVC (continued)

Name	Offset	Hex Tag
IARST64ABENDRSNPOOLNOTINCALLERKEY	0	42500
IARST64ABENDRSNPRIMARYEXTENTOVERLAID	0	42600
IARST64ABENDRSNSECONDARYEXTENTOVERLAID	0	42700
IARST64ABENDRSNUNEXPECTEDERROR	0	42800
IARST64ABENDRSNVALIDATIONERROR	0	52A00
IARST64RC_FAIL	0	8
IARST64RC_OK	0	0
IARST64RSNCODEMASK	0	FFFF00
IARST64RSNLOCKING	0	40400
IARST64RSNMEMLIMITEXHAUSTED	0	40100
IARST64RSNMEMLIMITZERO	0	40300
IARST64RSN64BITCOMMONEXHAUSTED	0	40200

## IAXSPE information

### IAXSPE heading information

<b>Common name:</b>	Shared page element
<b>Macro ID:</b>	IAXSPE
<b>DSECT name:</b>	SPE
<b>Owning component:</b>	Real Storage Manager (SC1CR)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Virtual Storage: Yes Subpool: N/A Key: 0 Residency: PFT Space
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	IARV SERV SHARE service
<b>Pointed to by:</b>	
<b>Serialization:</b>	RSMAD or RSMCM or RSMGL lock.
<b>Function:</b>	Provide information on a virtual view of the data which is part of a shared data group.

### IAXSPE mapping

Table 50. Structure SPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE IsA(SPE_TSPE)	64	SPE	
0	(0)	CHARACTER	64	SPEALL	
0	(0)	ADDRESS	8	SPEFQPTR	forward pointer

Table 50. Structure SPE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
8	(8)	ADDRESS	8	SPEBQPTR	backward pointer
16	(10)	ADDRESS	8	SPERSPEQ	related SPE queue
16	(10)	BITSTRING	7	*	Reserved
23	(17)	.... ...1		SPEFREE	SPE is on a free queue
24	(18)	ADDRESS	8	SPESDH	SDH address for shared page group
32	(20)	ADDRESS	8	SPEVSA	page address
32	(20)	CHARACTER	4	*	First word of VSA
36	(24)	CHARACTER	3	*	
36	(24)	BITSTRING	2	*	Actual contents of VSA.
38	(26)	.... 1111		SPEFLGS3	flags
		.... 1...		SPEANY64	May be fixed anywhere above or below 2 GIG
		.... .1..		SPEUNAU	View was created by an unauthorized user. At Unshare time if this bit is on, the unauthorized view count should be decremented (RABTUSV)
		.... ..1.		SPEEXPPI	This view is explicitly protected via pgser-protect service
		.... ...1		SPEMREC	Method specific recording bit
		.... ...1		SPEFIXHI	Method left the page table fix count high
		.... ...1		SPELOCKD	Method locked this view
39	(27)	CHARACTER	1	SPEFLGS2	flags
		1... ....		SPEGONE	Page no longer exists
		.1.. ....		SPEVALID	This page is valid in central storage
		..1. ....		SPEIOCUR	Paging I/O in progress for this page
		...1 ....		SPEDGSX	The page represented by this SPE has undergone a status change which affects its membership in the current group.
		.... 1...		SPEANYWH	Page may be fixed anywhere
		.... .1..		SPESSA	Page is Subspace Assigned
		.... ..1.		SPEDREF	Page is DREF. XPTDRCT contains the actual count.
		.... ...1		SPEFIXED	Page is fixed. XPTFXCT contains the actual count (when SPEGONE=0) or SPEFIXCT contains the actual count (when SPEGONE=1).
40	(28)	UNSIGNED	4	SPEWORD	programming word for page (valid only for dataspace pages, SPEDSPPG=1)
40	(28)	ADDRESS	4	SPESPGTR	real address of the subspace page table for this page (valid when the page is subspace assigned: SpeSSA=1b)
Note - the real address of subspace page tables is less than 2Gig b/c it resides in LSQA					
44	(2C)	ADDRESS	4	SPERAB	address of the RAB for space owning this page. Valid only when SPEIOCUR=0. When SPEIOCUR=1, get RAB from SPEPCB->PCBPBAB
44	(2C)	ADDRESS	4	SPEPCB	PCB address for view-related I/O. Valid only when SPEIOCUR=1.



Table 50. Structure SPE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
48	(30)	ADDRESS	8	SPEPGTR	Real address of the page table for this page. Valid only if page is valid in central storage or has paging I/O in progress, SPEVALID=1 or SPEIOCUR=1.
56	(38)	CHARACTER	4	*	
56	(38)	SIGNED	2	SPEFIXCT	Fix count for this view
58	(3A)	BITSTRING	1	SPEFLGS1	Flags
		1... ....		SPEOPAGE	View contains original page (source from first share)
		.11. ....		SPEVIEW	Shared page view
		...1 ....		SPEDSPPG	Page is a dataspace page
		.... 1...		SPELSQA	Copy of PFTLSQA if view is for SQA or LSQA
		.... .1..		SPEIGNOR	This SPE may be ignored when invalidating this shared page group
		.... ..1.		SPEFLAWD	SPE is flawed
		.... ...1		SPE_DELETEINPROGRESS	Indicates that the view is in the midst of being deleted when locks had to be dropped for an async copy of the view
59	(3B)	CHARACTER	1	*	Unused
60	(3C)	CHARACTER	4	*	Unused
64	(40)	CHARACTER	0	*	reserved

Table 51. Constants for IAXSPE

Len	Type	Value	Name	Description
4	DECIMAL	16777218	SPE_KALET	
0	BIT	01	SPEVIEW_COW	Copy-on-write view
0	BIT	00	SPEVIEW_SW	Shared/write view
0	BIT	10	SPEVIEW_RO	Read-only view
0	BIT	11	SPEVIEW_TW	Target-write view
4	DECIMAL	64	SPELEN	Length of the SPE
8	HEX	FFFFFFFFFFFFFFFF	SPESDH_REFMASK	Mask to extract SDH address. Eg: SDHPTR=(SPESDH&SPESDH_REFMASK)
8	HEX	0000000000000007	SPESDH_SETMASK	Mask to set SDH address. Eg: SPESDH=(SPESDH&SPESDH_SETMASK)   (SDHPTR&SPESDH_REFMASK)
8	HEX	FFFFFFFFFFFFFF000	SPEVSA_REFMASK	Mask to extract VSA value. Eg: VSA=(SPEVSA&SPEVSA_REFMASK)
8	HEX	00000000000000FF	SPEVSA_SETMASK	Mask to extract VSA value. Eg: SPEVSA=(SPEVSA&SPEVSA_SETMASK)   (VSA&SPEVSA_REFMASK)

Spe\_kMaxElements is the number of SPEs that fit in the pool area subtracted by the number of pages, in order to adjust for the SOBP header in each page. This calculation makes the following assumptions:  
 (1) The LENGTH(SOBP) = LENGTH(SPE), and  
 (2) LENGTH(SPE) evenly divides into a page.

8	DECIMAL	2072641536	SPE_KMAXELEMENTS
1	DECIMAL	0	SPE_K31QID
1	DECIMAL	1	SPE_K64QID

Table 51. Constants for IAXSPE (continued)

Len	Type	Value	Name	Description
SPE control block reason codes Reason codes up to 63 are detected by VERIFY processing Reason codes 64-127 are detected by the SOB verification SRB. Reason codes 128 and up are detected by miscellaneous processing in RSM recovery.				
1	DECIMAL	1	SPE_KRSNAVAIL	
1	DECIMAL	2	SPE_KRSNFREE	
1	DECIMAL	3	SPE_KRSNFLAWED	
1	DECIMAL	4	SPE_KRSNVSA31	
1	DECIMAL	5	SPE_KRSNVSA64	
1	DECIMAL	6	SPE_KRSNGONE	
1	DECIMAL	7	SPE_KRSNVALID	
1	DECIMAL	8	SPE_KRSNIOCUR1	
1	DECIMAL	9	SPE_KRSNDGSX	
1	DECIMAL	10	SPE_KRSNSHARE64	
1	DECIMAL	11	SPE_KRSNSHARE31	
1	DECIMAL	12	SPE_KRSNSDH	
1	DECIMAL	13	SPE_KRSNPROTECT	
1	DECIMAL	14	SPE_KRSNFIYANYWHERE1	
1	DECIMAL	15	SPE_KRSNFIYANYWHERE2	
1	DECIMAL	16	SPE_KRSNDREF	
1	DECIMAL	17	SPE_KRSNIOCUR2	
1	DECIMAL	19	SPE_KRSNFIYCOM	
1	DECIMAL	20	SPE_KRSNPCB	
1	DECIMAL	21	SPE_KRSNRAB	
1	DECIMAL	22	SPE_KRSNIOCUR3	
1	DECIMAL	64	SPE_KRSNQUEUEHEAD1	
1	DECIMAL	65	SPE_KRSNQUEUEHEAD2	
1	DECIMAL	66	SPE_KRSNNEXTCHAINPTR	
1	DECIMAL	67	SPE_KRSNPREVCHAINPTR	
1	DECIMAL	68	SPE_KRSNNEXTRETURNPTR1	
1	DECIMAL	69	SPE_KRSNNEXTRETURNPTR2	
1	DECIMAL	70	SPE_KRSNNEXTRETURNPTR3	
1	DECIMAL	71	SPE_KRSNPREVRETURNPTR1	
1	DECIMAL	72	SPE_KRSNPREVRETURNPTR2	
1	DECIMAL	73	SPE_KRSNNEXTNEIGHBOR	
1	DECIMAL	74	SPE_KRSNPREVNEIGHBOR	
1	DECIMAL	75	SPE_KRSNBADSDH	
1	DECIMAL	76	SPE_KRSNSDHFLAWED	
1	DECIMAL	77	SPE_KRSNUNQUEUED	
1	DECIMAL	78	SPE_KRSNQUEUEEMPTY	
1	DECIMAL	128	SPE_KRSNQUEUEHEAD	
1	DECIMAL	129	SPE_KRSNQUEUETAIL	
1	DECIMAL	130	SPE_KRSNFIRSTSPE	
1	DECIMAL	131	SPE_KRSNLASTSPE	
1	DECIMAL	132	SPE_KRSNQVER	

Table 51. Constants for IAXSPE (continued)

Len	Type	Value	Name	Description
1	DECIMAL	133	SPE_KRSNABEND_IAXID	
1	DECIMAL	134	SPE_KRSNABEND_IAXIM	

Table 52. Cross Reference for IAXSPE

Name	Offset	Hex	Tag
SPE	0		
SPE_DELETEINPROGRESS	3A		01
SPEALL	0		
SPEANYWH	27		08
SPEANY64	26		08
SPEBQPTR	8		
SPEDGSX	27		10
SPEDREF	27		02
SPEDSPPG	3A		10
SPEEXPPI	26		02
SPEFIXCT	38		
SPEFIXED	27		01
SPEFIXHI	26		01
SPEFLAWD	3A		02
SPEFLGS1	3A		
SPEFLGS2	27		
SPEFLGS3	26		0F
SPEFQPTR	0		
SPEFREE	17		01
SPEGONE	27		80
SPEIGNOR	3A		04
SPEIOCUR	27		20
SPELOCKD	26		01
SPELSQA	3A		08
SPEMREC	26		01
SPEOPAGE	3A		80
SPEPCB	2C		
SPEPGTR	30		
SPEPWORD	28		
SPERAB	2C		
SPERSPEQ	10		
SPESDH	18		
SPESPGTR	28		
SPESSA	27		04
SPEUNAU	26		04

Table 52. Cross Reference for IAXSPE (continued)

Name	Offset	Hex Tag
SPEVALID	27	40
SPEVIEW	3A	60
SPEVSA	20	

## IAXUDD information

### IAXUDD heading information

<b>Common name:</b>	USER DATA SPACE DESCRIPTOR
<b>Macro ID:</b>	IAXUDD
<b>DSECT name:</b>	UDD ACRONYM: UDD
<b>Owning component:</b>	REAL STORAGE MANAGER (SC1CR)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Virtual Storage: YES Auxiliary Storage: N/A Subpool: RESIDES IN RSM MANAGED DATA SPACE Key: 0 Data Space: YES Residency: Anywhere below 2 Gig
<b>Size:</b>	See Assembler Listing
<b>Created by:</b>	DSPSERV CREATE
<b>Pointed to by:</b>	UDDPTR, UDDFQPTR, UDDBQPTR, DABIUUQF, DABIUUQL
<b>Serialization:</b>	ADDRESS SPACE LEVEL LOCK FOR IUUQ RSMDS LOCK FOR THE FUQ
<b>Function:</b>	THE UDD CONTAINS THE INFORMATION USED TO MANAGE A SINGLE USER DATA SPACE.

### IAXUDD mapping

Table 53. Structure UDD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	128	UDD	
0	(0)	CHARACTER	128	UDDALL	
0	(0)	CHARACTER	8	UDDNEXTLOCATOR	Ptr and Alet to next Udd
0	(0)	ADDRESS	4	UDDFQPTR	FORWARD UDD QUEUE POINTER
4	(4)	UNSIGNED	4	UDDFALET	FORWARD UDD QUEUE ALET
8	(8)	CHARACTER	8	UDDPREVLOCATOR	Ptr and Alet to prev Udd
8	(8)	ADDRESS	4	UDDBQPTR	BACKWARD UDD QUEUE POINTER
12	(C)	UNSIGNED	4	UDDBALET	BACKWARD UDD QUEUE ALET
16	(10)	CHARACTER	4	UDDFLAGS	UDD FLAGS
16	(10)	CHARACTER	1	UDDKEY	STORAGE PROTECT KEY

Table 53. Structure UDD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1111 1...		UDDKEY5	STORAGE KEY 5 BITS
		1111 ....		UDDKEY	KEY FOR THE DATA SPACE PAGES
		.... 1...		UDDFPROT	PAGES ARE FETCH PROTECTED
		.... .111		*	RESERVED
17	(11)	BITSTRING	1	UDDFLGS1	FLAG BYTE 1
		1... ....		UDDSALL	SCOPE ALL USER DATA SPACE
		.1.. ....		UDDSSGL	SCOPE SINGLE USER DATA SPACE OR A HIPERSPACE
		..1. ....		UDDDREF	DREF USER DATA SPACE
		...1 ....		UDDHIPER	UDD IS FOR A HIPERSPACE
		.... 1...		UDDSCRLL	SCROLL TYPE HIPERSPACE
		.... .1..		UDDCACHE	CACHE TYPE HIPERSPACE
		.... ..1.		UDDCSTNO	CASTOUT(NO)
		.... ...1		UDDSCOM	SCOPE COMMON USER DATA SP.
18	(12)	BITSTRING	1	UDDFLGS2	FLAG BYTE 2
		1... ....		UDDSHARD	SHARED HIPERSPACE
		.1.. ....		UDDSHARE	PORTION OF UDD MAY HAVE ONCE CONTAINED SHARED VIRTUAL
		..1. ....		UDDUSER	THIS DATA SPACE HAS USER KEY LIMITS (SMF COUNTS) APPLIED TO IT.
		...1 ....		UDDMEGAROOED	Data space contains a megarooed segment
		.... 1...		UDDHIGH	MAY BE BACKED ABOVE/BELOW 2 GIG WHEN IOON
		.... .1..		UDDCRITICALPAGING	Indicates that dataspace can contain critical data. On-Dataspace is considered to have critical data, when the address space is marked as critical paging. Off-Pages should be paged out to aux
		.... ..1.		UDDSCMEVAC	This UDD has not yet been processed for storage evacuation
		.... ...1		UDDLARGEPAGE	This data space is preferentially backed with large (1M) pages
19	(13)	BITSTRING	1	UDDFLGS3	FLAG BYTE 3
		1... ....		UDD_HIDEZERO	Data space hides page 0
		.1.. ....		UDD_DELETEINPROGRESS	Make sure the UDD queue verifier doesn't incorrectly set our PFTEs as flawed.
		..11 1111		*	Reserved
20	(14)	CHARACTER	8	UDDDSPNM	NAME OF THE USER DATA SPACE
28	(1C)	UNSIGNED	4	UDDSQN	USER DATA SPACE SEQUENCE NO.
32	(20)	ADDRESS	4	UDDRDD	ADDRESS OF THE RDD
36	(24)	ADDRESS	4	UDDASTE	ADDRESS OF THE ASTE
40	(28)	ADDRESS	4	UDDTCB	ADDRESS OF THE OWNING TCB
44	(2C)	SIGNED	4	UDDMXVSA	MAXIMUM VIRTUAL STORAGE ADDRESS ALLOWED FOR THIS DATA SPACE AT ITS CURRENT SIZE.
44	(2C)	UNSIGNED	4	UDDVSA32	UNSIGNED VERSION OF UDDMXVSA
48	(30)	ADDRESS	4	UDDRRVRQ	ADDRRSS OF 1ST RVR ON RELATED CHAIN

Table 53. Structure UDD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
52	(34)	SIGNED	4	UDDMAXSZ	MAXIMUM SIZE POSSIBLE FOR THIS DATA SPACE (IN UNITS OF BLOCKS). THE CURRENT SIZE OF THE DATA SPACE CAN NEVER BE EXTENDED BEYOND THIS AMOUNT.
56	(38)	CHARACTER	4	UDDSHCTL	SHARE CONTROL COUNTS
56	(38)	UNSIGNED	2	UDDUPDCT	CURRENT NUMBER OF UPDATERS FOR THIS DATA SPACE AS REQUESTED THROUGH THE VDAC CONTROL FUNCTION
58	(3A)	UNSIGNED	2	UDDRDCCT	CURRENT NUMBER OF READERS FOR THIS DATA SPACE AS REQUESTED THROUGH THE VDAC CONTROL FUNCTION
60	(3C)	BITSTRING	4	UDDAALET	ALET OF ASTE FOR A CADS
64	(40)	BITSTRING	1	UDDQFLGS	UDD QUEUE FLAGS
		1... ....		UDDPDFQP	PDFQ WAS PROCESSED BY UIC UPDATE
		.1... ....		UDDFDFQP	FDFQ WAS PROCESSED BY UIC UPDATE
		..1. ....		UDDREPAIR	DATASPACE FRAME Q HAS BEEN REPAIRED FOR THIS UDD BY THE DATASPACE FRAME Q REPAIR SRB (IARRUSRB)
		...1 1111		*	RESERVED
65	(41)	CHARACTER	3	*	RESERVED
68	(44)	ADDRESS	8	UDDPDFQH	Pointer to the header of the pageable data space frame queue (PDFQ)
76	(4C)	CHARACTER	4	*	Unused
80	(50)	UNSIGNED	1	UDDMXUIC	Max UIC for the PDFQ
81	(51)	CHARACTER	3	*	Reseved
84	(54)	ADDRESS	8	UDDFDFQH	Pointer to the header of the FIXED DATA SPACE FRAME QUEUE (FDFQ)
92	(5C)	UNSIGNED	4	*	Reserved
96	(60)	UNSIGNED	8	UDDBBRSEQ#	Sequence number to indicate when this UDD can be reused. See Rit_NextBBSeq#. While this field is actually on a double word boundary it was decided to use Bdy(WORD) to fix the warnings generated because there are many parts that code 'LIKE(UDD) Bdy(WORD)' when it should be Bdy(DWORD)
104	(68)	ADDRESS	8	UDDPDLQH	Pageable large page data space frame queue (PDLQ)
112	(70)	CHARACTER	16	*	Reserved
128	(80)	CHARACTER	0	*	RESERVED - KEEP THE LENGTH OF A UDD AT 128 BYTES

Table 54. Constants for IAXUDD

Len	Type	Value	Name	Description
1	HEX	01	UDDFUQN	FREE UDD QUEUE (ON RDD)
1	HEX	02	UDDIUUQN	IN-USE UDD QUEUE (ON DAB)
1	HEX	03	UDDDIUQN	DELETE INTERNAL UDD QUEUE
UDD MASKS				
4	HEX	00800000	UDDKSALL	MASK FOR THE SCOPE(ALL) UDS BIT
4	HEX	00400000	UDDKSSGL	MASK FOR THE SCOPE(SINGLE) UDS BIT
4	HEX	00200000	UDDKDREF	MASK FOR THE DREF UDS BIT
4	HEX	00100000	UDDKHIPR	MASK FOR THE HIPERSPACE BIT

Table 54. Constants for IAXUDD (continued)

Len	Type	Value	Name	Description
4	HEX	00080000	UDDKSCRL	MASK FOR THE SCROLL HIPERSPACE BIT
4	HEX	00040000	UDDKCACH	MASK FOR THE CACHE HIPERSPACE BIT
4	HEX	00010000	UDDKSCOM	MASK FOR THE COMMON BIT
4	HEX	00088000	UDDKSHSH	MASK USED TO DETECT A SHARED SCROLL TYPE HIPERSPACE
4	HEX	0000007F	UDDBDYMASK	Used for testing whether UCB is on the correct boundary

Table 55. Cross Reference for IAXUDD

Name	Offset	Hex Tag
UDD	0	
UDD_DELETEINPROGRESS	13	40
UDD_HIDEZERO	13	80
UDDAALET	3C	
UDDALL	0	
UDDASTE	24	
UDDBALET	C	
UDDBBRSEQ#	60	
UDDBQPTR	8	
UDDCACHE	11	04
UDDCRITICALPAGING	12	04
UDDCSTNO	11	02
UDDDREF	11	20
UDDDSPNM	14	
UDDFALET	4	
UDDFDFQH	54	
UDDFDFQP	40	40
UDDFLAGS	10	
UDDFLGS1	11	
UDDFLGS2	12	
UDDFLGS3	13	
UDDFPROT	10	08
UDDFQPTR	0	
UDDHIGH	12	08
UDDHIPER	11	10
UDDKEY	10	F0
UDDLARGEPAGE	12	01
UDDMAXSZ	34	
UDDMEGAROOED	12	10
UDDMXUIC	50	
UDDMXVSA	2C	

Table 55. Cross Reference for IAXUDD (continued)

Name	Offset	Hex Tag
UDDNEXTLOCATOR	0	
UDDPDFQH	44	
UDDPDFQP	40	80
UDDPDLQH	68	
UDDPREVLOCATOR	8	
UDDQFLGS	40	
UDDRDCCT	3A	
UDDRDD	20	
UDDREPAIR	40	20
UDDRRVRQ	30	
UDDSALL	11	80
UDDSCMEVAC	12	02
UDDSCOM	11	01
UDDSCRLL	11	08
UDDSHARD	12	80
UDDSHARE	12	40
UDDSHCTL	38	
UDDSKEY	10	
UDDSKEY5	10	F8
UDDSQN	1C	
UDDSSGL	11	40
UDDTCB	28	
UDDUPDCT	38	
UDDUSER	12	20
UDDVSA32	2C	

## IAXV64C information

### IAXV64C programming interface information

IAXV64C is a programming interface.

### IAXV64C heading information

<b>Common name:</b>	IARV64 Service Return/Reason code constants
<b>Macro ID:</b>	IAXV64C
<b>DSECT name:</b>	None
<b>Owning component:</b>	Real Storage Manager (SC1CR)
<b>Eye-catcher ID:</b>	NONE



**Storage attributes:** Subpool: N/A  
Key: N/A  
Residency: Caller-supplied

**Size:** N/A

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** None required

**Function:** Provide equates for return and reason codes.  
This macro is divided into 2 sections.  
- The first section are constants used for processing IARV64 requests that do not ABEND. For example, when COND=YES is specified. These constants are generally prefixed with IARV64RSN.  
- The second section are constants used for processing IARV64 requests that ABEND. For example, when COND=NO is in effect. Or when it is a type of error that ignores the COND=YES specification. These constants are generally prefixed with IARV64ABEND.

## IAXV64C mapping

Table 56. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IAXV64C_1; This section are constants used for processing IARV64 requests that do not ABEND. For example, when COND=YES is specified. These constants are generally prefixed with IARV64RSN.					
0	(0)	BITSTRING	0	IARV64RSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the reason code.
		.... ....		IARV64RC_OK	"X'00000000'" Meaning: IARV64 request successful. Action: None required.
		.... .1..		IARV64RC_WARN	"X'00000004'" Meaning: Warning Action: Refer to the action provided with the specific reason code.
		.... 1...		IARVP64RC_FAIL	"X'00000008'" Meaning: Service failed due to running out of resources Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IARV64RSN64BITMEMLIMITEXHAUSTED	"X'00001600'" Meaning: For 64-Bit private storage the address space MEMLIMIT was exceeded. Action: Either raise the MEMLIMIT of the address space or determine if private storage is being consumed excessively somewhere.
0	(0)	BITSTRING	0	IARV64RSN64BITCOMMONEXHAUSTED	

Table 56. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00001700'" Meaning: Insufficient free space to satisfy the IARV64 request Action: For common storage, either raise the system limit on common (HVCCOMMON) or determine if common storage is being consumed excessively somewhere.
0	(0)	BITSTRING	0	IARV64RSN64BITMEMLIMITZERO	"X'00002100'" Meaning: For 64-Bit private storage the address space MEMLIMIT was set to zero. Action: If you want to allocate 64-bit private virtual storage in this address space set the MEMLIMIT to something other than zero.
0	(0)	BITSTRING	0	IARVP64DRSNNOLARGEFRAMEAREA	"X'00002200'" Meaning: For a IARV64 GETCOMMON PAGEFRAMESIZE=1MEG request there is no Large Frame Area on this system. Action: Reissue the request specifying PAGEFRAMESIZE=4k Or specifying PAGEFRAMESIZE=MAX on the GETCOMMON request such that your request will be backed by 4K page frames if you are running on a machine that does not have a Large Frame Area.
0	(0)	BITSTRING	0	IARV64RSNINORIGINNOTAVAILABLE	"X'00002400'" Meaning: For an IARV64 GETSTOR INORIGIN= request, all or some of the requested area is already allocated. Action: Determine why your program is attempting to obtain allocated storage. outside the specified virtual area. The IARV64 REQUEST=LIST service can be used to identify allocated storage above the 2G bar.
0	(0)	BITSTRING	0	IARV64RSNNOLARGEFRAMES	"X'00005D00'" Meaning: For an IARV64 GETCOMMON PAGEFRAMESIZE=1MEG request there were no more large page frames to satisfy the request. Action: Reissue the request specifying PAGEFRAMESIZE=4k Or specifying PAGEFRAMESIZE=MAX on the GETCOMMON requests such that your request will be backed by 4K page frames.
End of IARV64 Return and Reason Code definitions This section are constants used for processing IARV64 requests that ABEND. For example, when COND=NO is in effect. Or when it is a type of error that ignores the COND=YES specification. These constants are generally prefixed with IARV64ABEND.					
0	(0)	BITSTRING	0	IARV64ABENDRSNCODEMASK	"X'00FFFF00'" Use this mask to isolate the non component-diagnostic portion of the abend reason code.
IARVP64 Abend Reason Code definitions					
0	(0)	BITSTRING	0	IARV64ABENDRSNNOSEGSEXCEEDSMAX	"X'00001500'" Meaning: The number of segments specified on an iARV64 GETCOMMON request exceeds the maximum number of segments allowed. Action: Ensure you request specifies a number of segments for GETCOMMON that does not exceed the maximum size of the HVCCOMMON area.

Table 56. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IARV64ABENDRSN64BITMEMLIMITEXHAUSTED	"X'00001600'"
<p>Meaning: For 64-Bit private storage the address space MEMLIMIT was exceeded. Action: Either raise the MEMLIMIT of the address space or determine if private storage is being consumed excessively somewhere.</p>					
0	(0)	BITSTRING	0	IARV64ABENDRSN64BITCOMMONEXHAUSTED	"X'00001700'"
<p>Meaning: Insufficient free space to satisfy the IARV64 request Action: For common storage, either raise the system limit on common (HVCOMMON) or determine if common storage is being consumed excessively somewhere.</p>					
0	(0)	BITSTRING	0	IARV64ABENDRSNCALLERNOTAUTH	"X'00001900'" Meaning: Caller is not authorized to perform the request. Action: Caller needs to be in supervisor state or key 0-7 for an IARV64 GETCOMMON request.
0	(0)	BITSTRING	0	IARV64ABENDRSN64BITMEMLIMITZERO	"X'00002100'" Meaning: For 64-Bit private storage the address space MEMLIMIT was set to zero. Action: If you want to allocate 64-bit private virtual storage in this address space set the MEMLIMIT to something other than zero.
0	(0)	BITSTRING	0	IARV64ABENDRSNNOLARGEFRAMEAREA	"X'00002200'" Meaning: For a IARV64 GETCOMMON PAGEFRAMESIZE=1MEG request there is no Large Frame Area on this system. Action: Reissue the request specifying PAGEFRAMESIZE=4k Or specifying PAGEFRAMESIZE=MAX on the GETCOMMON request such that your request will be backed by 4K page frames if you are running on a machine that does not have a Large Frame Area.
0	(0)	BITSTRING	0	IARV64ABENDRSNINORIGINNOTAVAILABLE	"X'00002400'"
<p>Meaning: For an IARV64 GETSTOR INORIGIN= request, all or some of the requested area is already allocated. Action: Determine why your program is attempting to obtain allocated storage outside the specified virtual area. The IARV64 REQUEST=LIST service can be used to identify allocated storage above the 2G bar.</p>					
0	(0)	BITSTRING	0	IARCP64ABENDRSNKEYSPECIFIEDNOTVALID	"X'00003700'"
<p>Meaning: The parameter list passed to the IARV64 GETCOMMON service specified a KEY value that is not valid. Action: Change the value specified for the KEY parameter to be in the range of 1-7.</p>					
0	(0)	BITSTRING	0	IARV64ABENDRSNMOTKNNOTVALID	

Table 56. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"X'00003800'" Meaning: For a IARV64 GETCOMMON request the MOTKN provided is not a valid previously system generated token. Action: Ensure the MOTKN is valid and is one previously returned to you by a IARV64 GETCOMMON request.
0	(0)	BITSTRING	0	IARV64ABENDRSNLARGEPAGEEDATNOTINSTALLED	
					"X'00005400'" Meaning: For a IARV64 GETCOMMON PAGEFRAMESIZE=1MEG request the required eDAT Architecture Facility is not installed on this machine. Action: Reissue the request specifying PAGEFRAMESIZE=4k Or specifying PAGEFRAMESIZE=MAX on the GETCOMMON requests such that your request will be backed by 4K page frames if you are running on a machine that does not have the eDAT Architecure Facility installed.
0	(0)	BITSTRING	0	IARV64ABENDRSNZEROSEGSSPECIFIED	
					"X'00005900'" Meaning: The parameter list passed to the IARV64 GETCOMMON service specified zero segments on the SEGMENTS keyword. Action: Change the number of segments to be greater than zero.
0	(0)	BITSTRING	0	IARV64ABENDRSNNOLARGEFRAMES	
					"X'00005D00'" Meaning: For an IARV64 GETCOMMON PAGEFRAMESIZE=1MEG request there were no more large page frames to satisfy the request. Action: Reissue the request specifying PAGEFRAMESIZE=4k Or specifying PAGEFRAMESIZE=MAX on the GETCOMMON requests such that your request will be backed by 4K page frames.
0	(0)	BITSTRING	0	IARV64ABENDRSNNOT1MBOUNDARY	
					"X'00005100'" Meaning: A range, starting address or INORIGIN specification must begin on a segment (1mb) boundary. Action: Reissue the request with a range, starting address of INORIGIN specification that is on a segment (1mb) boundary.
0	(0)	BITSTRING	0	IARV64ABENDRSNNOT2GBOUNDARY	
					"X'00006A00'" Meaning: Starting address of the range or INORIGIN specification must begin on a region 3rd (2gb) boundary. Action: Reissue the request with a starting address of the range or INORIGIN specification that is on a region 3rd (2gb) boundary.
0	(0)	BITSTRING	0	IARV64ABENDRSNINORIGINNOTVALID	

Table 56. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00007300'" Meaning: For an IARV64 GETSTOR INORIGIN= request, all or some of the requested area is below the 2G bar, in 64-bit common area, or in 64-bit shared area. When a specific virtual area (USE2GT032G, USE2GT064G, LOCALSYSAREA) is requested, all or some of the requested area is not within the specified virtual area. Action: Determine why your program is mistakenly requesting storage outside the specified virtual area.
0	(0)	BITSTRING	0	IARV64ABENDRSNPLINORIGINNOTGETSTOR	
					"X'00200100'" Meaning: The parameter list passed to the IARV64 service specified the INORIGIN keyword with a request other than GETSTOR. Action: If the MODIFY form of the IARV64 service was used to build the parameter list, check to see if the INORIGIN keyword was specified with a request other than GETSTOR. If not, check for a possible storage overlay of the parameter list.
0	(0)	BITSTRING	0	IARV64ABENDRSNPLSENSITIVENOTGET	
					"X'00200200'" Meaning: The parameter list passed to the IARV64 service specified the SENSITIVE keyword with a request other than GETSTOR, GETSHARED or GETCOMMON. Action: If the MODIFY form of the IARV64 service was used to build the parameter list, check to see if the SENSITIVE keyword was specified with a request other than GETSTOR, GETSHARED or GETCOMMON. If not, check for a possible storage overlay of the parameter list.
End of IARV64 Abend Reason Code definitions					
0	(0)	X'0'	0	IARV64_END	"0" IBM use only

Table 57. Cross Reference for IAXV64C

Name	Offset	Hex Tag
IARCP64ABENDRSNKEYSPECIFIEDNOTVALID	0	3700
IARVP64ABENDRSNCALLERNOTAUTH	0	1900
IARVP64ABENDRSNLARGEPAGEEDATNOTINSTALLED	0	5400
IARVP64ABENDRSNNOLARGEFRAMEAREA	0	2200
IARVP64DRSNNOLARGEFRAMEAREA	0	2200
IARVP64RC_FAIL	0	8
IARV64_END	0	0
IARV64ABENDRSNCODEMASK	0	FFFF00
IARV64ABENDRSNINORIGINNOTAVAILABLE	0	2400
IARV64ABENDRSNINORIGINNOTVALID	0	7300
IARV64ABENDRSNMOTKNNOTVALID	0	3800
IARV64ABENDRSNNOLARGEFRAMES	0	5D00
IARV64ABENDRSNNOSEGSEXCEEDSMAX	0	1500

Table 57. Cross Reference for IAXV64C (continued)

Name	Offset	Hex Tag
IARV64ABENDRSNNOT1MBOUNDARY	0	5100
IARV64ABENDRSNNOT2GBOUNDARY	0	6A00
IARV64ABENDRSNPLINORIGINNOTGETSTOR	0	200100
IARV64ABENDRSNPLSENSITIVENOTGET	0	200200
IARV64ABENDRSNZEROSEGSSPECIFIED	0	5900
IARV64ABENDRSN64BITCOMMONEXHAUSTED	0	1700
IARV64ABENDRSN64BITMEMLIMITEXHAUSTED	0	1600
IARV64ABENDRSN64BITMEMLIMITZERO	0	2100
IARV64RC_OK	0	0
IARV64RC_WARN	0	4
IARV64RSNCODEMASK	0	FFFF00
IARV64RSNINORIGINNOTAVAILABLE	0	2400
IARV64RSNNOLARGEFRAMES	0	5D00
IARV64RSN64BITCOMMONEXHAUSTED	0	1700
IARV64RSN64BITMEMLIMITEXHAUSTED	0	1600
IARV64RSN64BITMEMLIMITZERO	0	2100

## IAXV64WA information

### IAXV64WA programming interface information

**ONLY** the following fields are part of the programming interface information:

- V64WACountData
- V64WACountDataV1
- V64WADiagData
- V64WAENTRY
- V64WAHEADERPUBLIC

### IAXV64WA heading information

**Common name:** IARV64 REQUEST=LIST work area  
**Macro ID:** IAXV64WA  
**DSECT name:** V64AWorkArea  
**Owning component:** Real Storage Manager (SC1CR)  
**Eye-catcher ID:** NONE  
**Storage attributes:** Key: Caller-supplied  
Residency: Caller-Supplied

**Size:** Variable  
V64WAHEADER -- X'0028' bytes  
V64WAENTRY -- X'0014' bytes  
V64WADiaGData- X'002C' bytes  
V64WACountData - x'0018' bytes  
V64WACountDataV1 - x'0020' bytes

**Created by:** Caller

**Pointed to by:** IARV64 REQUEST=LIST parameter list  
IARV64 REQUEST=COUNTPAGES parameter list

**Serialization:** None required

**Function:** The returned output consists of a header mapped by V64WAHEADER followed by entries mapped by V64WAENTRY. The number of entries is indicated by field V64WANUMDATAAREAS.

## IAXV64WA mapping

Table 58. Structure V64WAHEADER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	V64WAHEADER	Work area header for the call to IARV64 Request=List
0	(0)	CHARACTER	32	V64WAHEADERPRIVATE	Internal work area
32	(20)	CHARACTER	8	V64WAHEADERPUBLIC	Public area
32	(20)	SIGNED	4	V64WARETURNCODE	Return code from IARV64 Request=list. See Equates beginning "V64WARC_"
36	(24)	SIGNED	4	V64WANUMDATAAREAS	Number of memory object storage range list entries that follow
36	(24)	X'28'	0	V64WAHEADER_LEN	"*-V64WAHEADER"

Table 59. Structure V64WAENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	V64WAENTRY	Map for each memory object range list entry
0	(0)	BITSTRING	1	V64WAFLAG	Memory object flag byte
	1111 ....			V64WAKEY	"X'F0'" Storage key for the memory object containing this range
	.... 1...			V64WAFPROT	"X'08'" 1 = memory object is fetch-protected 0 = memory object is not fetch protected
	.... .1..			V64WASHARED	"X'04'" 1 = memory object is a shared memory object 0 = non-shared (private) memory object
	.... ..1.			V64WANONDEFAULTGUARDAREA	"X'02'" 1 = memory object has at least one guard area that is not the default
	.... ...1			V64WADEFAULTGUARDAREA	"X'01'" 1 = memory object has a default guard area defined (guard area at beginning or end of the memory object based on GUARDLOC)
1	(1)	BITSTRING	1	V64WAFLAG1	Memory object flag byte
	1... ....			V64WASYSAFF	"X'80'" 1 = the system affinity for this memory object is still attached
	.1.. ....			V64WAGUARD	"X'40'" 1 = the memory object is completely guarded

Table 59. Structure V64WAENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		V64WALARGEPAGE	"X'20'" 1 = the memory object is backed by large page frame
		...1 ....		V64WAUTOKENNOTMATCH	"X'10'" Used for DUMPPROTocol only
		.... 1...		V64WACOMMON	"X'08'" 1 = memory object is a 64bit common memory object 0 = Non-64BIT common memory object
		.... .1..		V64DIAGDATA	"X'04'" 1 = Momb diagnostic data present 0 = Momb diagnostic data not present
2	(2)	BITSTRING	1		Reserved - must be zeroes
3	(3)	ADDRESS	1	V64WADUMPPRIORITY	Value from 1 to 99 inclusive
4	(4)	CHARACTER	8	V64WASTART64	Starting address of this storage range (Assumed to be on a segment boundary)
12	(C)	CHARACTER	8	V64WAEND64	End address of this storage range
12	(C)	X'14'	0	V64WAENTRY_LEN	"*-V64WAENTRY"

Table 60. Structure V64WADIAGDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	V64WADIAGDATA	Map for MOMb diagnostic information
0	(0)	CHARACTER	8	V64WACREATETIME	Time memory object was created
8	(8)	CHARACTER	2	V64WACALLERASID	Asid of program that issued create req
10	(A)	CHARACTER	2	V64WACALLERHOMEASID	Home asid at create time
12	(C)	CHARACTER	2	V64WACALLERPRIMARYASID	Primary asid at create time
14	(E)	CHARACTER	2	V64WACALLEROWNERASID	Owner asid at create time
16	(10)	CHARACTER	4	V64WACALLER	Address of program that issued create
20	(14)	CHARACTER	8	V64WAJOBNAME	Owner Job name
28	(1C)	CHARACTER	8	V64WAJOBID	Owner Job ID
36	(24)	CHARACTER	4	V64WAUNOWNEDDATE	Date owner terminated 0YYYYDDD Julian date
40	(28)	CHARACTER	4	V64WAUNOWNEDTIME	Time owner terminated HHMMSSth
40	(28)	X'2C'	0	V64WADIAG_LEN	"*-V64WADiagData"

Table 61. Structure V64WACOUNTDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	V64WACOUNTDATA	Map for COUNTPAGES output area
0	(0)	DBL WORD	8	V64WAONAUX	Number of 4K pages with a copy on AUX
8	(8)	DBL WORD	8	V64WAINREAL	Number of 4K pages with a copy in REAL
16	(10)	DBL WORD	8	V64WABOTH	Number of 4K pages with a copy in REAL and on AUX
16	(10)	X'18'	0	V64WACOUNT_LEN	"*-V64WACountData"

Table 62. Structure V64WACOUNTDATAV1

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	V64WACOUNTDATAV1	Map for COUNTPAGES V1 output area
0	(0)	DBL WORD	8	V64WAONAUXV1	Number of 4K pages with a copy on AUX



Table 62. Structure V64WACOUNTDATAV1 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	DBL WORD	8	V64WAINREALV1	Number of 4K pages with a copy in REAL
16	(10)	DBL WORD	8	V64WABOTHV1	Number of 4K pages with a copy in REAL and on AUX
24	(18)	DBL WORD	8	V64WADISCARDEDV1	Number of 4K pages in real that have not been referenced or changed
24	(18)	X'20'	0	V64WACOUNTV1_LEN	"*-V64WACountDataV1"
24	(18)	X'0'	0	V64WARC_OK	"0" Successful completion
24	(18)	X'2'	0	V64WARC_CHANGED	"2" Successful completion but structure changed
24	(18)	X'4'	0	V64WARC_PARTIAL	"4" Partially successful completion. More information remains to be returned in the work area
24	(18)	X'6'	0	V64WARC_PARTIALCHANGED	"6" Partially successful completion. More information remains to be returned in the work area. The structure has changed.
24	(18)	X'8'	0	V64WARC_NOTFOUND	"8" No memory object was found
24	(18)	X'10'	0	V64WARC_SUBSPACEMODE	"16" Request rejected. Request was issued in subspace mode.

Table 63. Cross Reference for IAXV64WA

Name	Offset	Hex Tag
V64DIAGDATA	1	4
V64WABOTH	10	
V64WABOTHV1	10	
V64WACALLER	10	
V64WACALLERASID	8	
V64WACALLERHOMEASID	A	
V64WACALLEROWNERASID	E	
V64WACALLERPRIMARYASID	C	
V64WACOMMON	1	8
V64WACOUNT_LEN	10	18
V64WACOUNTDATA	0	
V64WACOUNTDATAV1	0	
V64WACOUNTV1_LEN	18	20
V64WACREATETIME	0	
V64WADEFAULTGUARDAREA	0	1
V64WADIAG_LEN	28	2C
V64WADIAGDATA	0	
V64WADISCARDEDV1	18	
V64WADUMPPRIORITY	3	
V64WAEND64	C	
V64WAENTRY	0	
V64WAENTRY_LEN	C	14

Table 63. Cross Reference for IAXV64WA (continued)

Name	Offset	Hex Tag
V64WAFLAG	0	
V64WAFLAG1	1	
V64WAFPROT	0	8
V64WAGUARD	1	40
V64WAHEADER	0	
V64WAHEADER_LEN	24	28
V64WAHEADERPRIVATE	0	
V64WAHEADERPUBLIC	20	
V64WAINREAL	8	
V64WAINREALV1	8	
V64WAJOBID	1C	
V64WAJOBNAME	14	
V64WAKEY	0	F0
V64WALARGE PAGE	1	20
V64WANONDEFAULTGUARDAREA	0	2
V64WANUMDATAAREAS	24	
V64WAONAUX	0	
V64WAONAUXV1	0	
V64WARC_CHANGED	18	2
V64WARC_NOTFOUND	18	8
V64WARC_OK	18	0
V64WARC_PARTIAL	18	4
V64WARC_PARTIALCHANGED	18	6
V64WARC_SUBSPACEMODE	18	10
V64WARETURNCODE	20	
V64WASHARED	0	4
V64WASTART64	4	
V64WASYSAFF	1	80
V64WAUNOWNEDDATE	24	
V64WAUNOWNEDTIME	28	
V64WAUTOKENNOTMATCH	1	10

## IAZASINF information

### IAZASINF programming interface information

IAZASINF is a programming interface.

### IAZASINF heading information

**Common name:** Active Step information mapping

**Macro ID:** IAZASINF

**DSECT name:** ASINF

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** ASIN  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: caller  
Key: Any  
Residency: Any

**Size:** See ASINSIZE equate

**Created by:** Caller of JES access method GET service

**Pointed to by:** RPLERMSA in the IFGRPL mapping macro

**Serialization:** None required

**Function:** This DSECT maps the information returned on the JES access method GET interface for the active job step. The caller provides the address of the area in RPLERMSA and the length of the area in RPLEMLen. JES will then fill in this area on a successful GET (RC=0) via SRB of the unwritten buffer from the target address space.  
In order for JES to set the output area, the caller must set the eyecatcher in the first 4 bytes of the area passed.

## IAZASINF mapping

Table 64. Structure ASINF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ASINF	
0	(0)	CHARACTER	4	ASINEYE	Eyecatcher (set by caller)
4	(4)	SIGNED	2	ASINLEN	Length of area filled in
6	(6)	BITSTRING	1	ASINVER	Version of data
6	(6)	X'1'	0	ASINVER1	"1" Version 1 of IAZASINF
6	(6)	X'1'	0	ASINVERC	"ASINVER1" Current version of data
7	(7)	BITSTRING	1	ASINFLG1	Flag byte
Active Job Step information					
8	(8)	SIGNED	1	ASINSTPN	Step number
9	(9)	BITSTRING	3		Reserved
12	(C)	CHARACTER	8	ASINSTEP	Step name
20	(14)	CHARACTER	8	ASINPROC	Procedure name
28	(1C)	CHARACTER	8	ASINPGMN	Program name
36	(24)	BITSTRING	20		Reserved
36	(24)	X'38'	0	ASINSIZ1	"*-ASINF" Version 1 size of area
36	(24)	X'38'	0	ASINSIZE	"*-ASINF" Size of area

Table 65. Cross Reference for IAZASINF

Name	Offset	Hex Tag
ASINEYE	0	C1E2C9D5
ASINF	0	
ASINFLG1	7	
ASINLEN	4	
ASINPGMN	1C	
ASINPROC	14	
ASINSIZE	24	38
ASINSIZ1	24	38
ASINSTEP	C	
ASINSTPN	8	
ASINVER	6	
ASINVERC	6	1
ASINVER1	6	1

## IAZBTOKP information

### IAZBTOKP programming interface information

IAZBTOKP is a programming interface.

### IAZBTOKP heading information

**Common name:** JES spool data set browse token (common mapping)

**Macro ID:** IAZBTOKP

**DSECT name:** IAZBTOKP or BTOK

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** BTOK  
Offset: BTOKID-BTOK  
Length: L'BTOKID

**Storage attributes:** Subpool: Caller  
Key: Any  
Residency: Virtual and real storage are anywhere.

**Size:** See BTOKSIZE

**Created by:** Caller of dynamic allocation  
Sysout API Put/Get SSI

**Pointed to by:** SSALBTKN in the dynamic allocation SSOB extension  
SSS2BTOK in the Sysout API SSOB extension

**Serialization:** None required

**Function:**

This macro maps the spool data set browse token that is passed via a dynamic allocation text unit on spool data set browse allocation requests. The information in this token is utilized by the job entry subsystem to allocate spool data sets in read only (browse) mode so they may be opened and read using standard MVS data management services for access to spool data. The information is also used to link Sysout API control information to the data set being allocated. When used in this fashion, the IAZBTOKP area is constructed entirely by the Sysout API and a pointer to this area is passed back to the Sysout API PUT/GET function caller in the SSS2BTOK field.

**IAZBTOKP mapping**

Table 66. Structure IAZBTOKP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IAZBTOKP	
0	(0)	X'0'	0	BTOK	"IAZBTOKP" ALTERNATE DSECT NAME
0	(0)	BITSTRING	2	BTOKPL1	ID LENGTH
2	(2)	CHARACTER	4	BTOKID	ID FIELD
6	(6)	BITSTRING	2	BTOKPL2	VERSION LENGTH
8	(8)	BITSTRING	2	BTOKVER(0)	SERVICE VERSION NUMBER
8	(8)	BITSTRING	1	BTOKTYPE	Control block type
8	(8)	X'0'	0	BTOKBRWS	"0" Block created for browse
EQU 1 Reserved - do not ever use					
8	(8)	X'2'	0	BTOKSAPI	"2" Block created by Sysout API
8	(8)	X'3'	0	BTOKSTKN	"3" SPOOL data set or client token allocation
9	(9)	BITSTRING	1	BTOKVERS	Version
9	(9)	X'3'	0	BTOKVRNM	"3" Version OS/390 Release 10
10	(A)	BITSTRING	2	BTOKPL3	Spool token length
BTOKIOTP points to one of the following data areas based on the value of BTOKTYPE: BTOKTYPE Contents of BTOKIOTP BTOKBRWS SPOOL address of IOT containing PDDB for data set to be allocated (JES2) BTOKSAPI SAPI token (entire IAZBTOKP returned from SAPI SSI) BTOKSTKN SPOOL token. This can be either a client token (returned from dynamic allocation using key DALRTCTK) or a data set token (returned by SAPI in field SSS2DSTR)					
12	(C)	BITSTRING	4	BTOKIOTP	IOT MTTR (or zero)
12	(C)	X'C'	0	BTOKSAPT	"BTOKIOTP,L'BTOKIOTP,T'BTOKIOTP SAPI token @R10LSDB"
12	(C)	X'C'	0	BTOKSPLT	"BTOKIOTP,L'BTOKIOTP,T'BTOKIOTP Client/DS token @R10LSDB"
16	(10)	BITSTRING	2	BTOKPL4	JOB KEY LENGTH
18	(12)	BITSTRING	4	BTOKJKEY	JOB KEY IN HEX
22	(16)	BITSTRING	2	BTOKPL5	ASID LENGTH
24	(18)	BITSTRING	2	BTOKASID	ASID IN HEX

Table 66. Structure IAZBTOKP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
26	(1A)	BITSTRING	2	BTOKPL6	NETWORK RECEIVER USERID LENGTH
28	(1C)	CHARACTER	8	BTOKRCID	NETWORK RECEIVER USERID
36	(24)	BITSTRING	2	BTOKPL7	LOG STRING PARAMETER LENGTH
38	(26)	CHARACTER	255	BTOKLOGS(0)	LOG STRING PARAMETER
38	(26)	BITSTRING	1	BTOKLSDL	LOG STRING DATA LENGTH (0-254 BYTES)
39	(27)	CHARACTER	254	BTOKLSDA	LOG STRING DATA
39	(27)	X'125'	0	BTOKEND	"*" END OF BTOK
39	(27)	X'125'	0	BTOKSIZE	"*-BTOK" SIZE OF BTOK

Table 67. Cross Reference for IAZBTOKP

Name	Offset	Hex	Tag
BTOK	0		0
BTOKASID	18		
BTOKBRWS	8		0
BTOKEND	27		125
BTOKID	2		
BTOKIOTP	C		
BTOKJKEY	12		
BTOKLOGS	26		
BTOKLSDA	27		
BTOKLSDL	26		
BTOKPL1	0		
BTOKPL2	6		
BTOKPL3	A		
BTOKPL4	10		
BTOKPL5	16		
BTOKPL6	1A		
BTOKPL7	24		
BTOKRCID	1C		
BTOKSAPI	8		2
BTOKSAPT	C		C
BTOKSIZE	27		125
BTOKSPLT	C		C
BTOKSTKN	8		3
BTOKTYPE	8		
BTOKVER	8		
BTOKVERS	9		
BTOKVRNM	9		3
IAZBTOKP	0		

## IAZCHK information

### IAZCHK programming interface information

IAZCHK is a programming interface.

### IAZCHK heading information

<b>Common name:</b>	JES FSI checkpoint record area
<b>Macro ID:</b>	IAZCHK
<b>DSECT name:</b>	IAZCHK or CHK
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'CHK ' Offset: CHKID-CHK Length: L'CHKID
<b>Storage attributes:</b>	Subpool: Caller Key: Any Residency: Virtual and real storage are anywhere.
<b>Size:</b>	See CHKLEN
<b>Created by:</b>	Caller of FSIREQ service
<b>Pointed to by:</b>	GDSCKPA field of the IAZFSIP data area when FSIREQ REQUEST=FSIGDS CHKADR field of the IAZFSIP data area when FSIREQ REQUEST=FSICKPT
<b>Serialization:</b>	None required
<b>Function:</b>	This macro maps the data area describing the dataset information needed to understand the progress being made on the dataset by the processing FSA when a significant point in logic was reached. This information is used if the processing needs to be restarted, for example, a printer is repositioned and needs to resume work on a piece of output.

### IAZCHK mapping

Table 68. Structure IAZCHK

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IAZCHK	
0	(0)	X'0'	0	CHK	"IAZCHK,0,C'J'" Alternate DSECT name
0	(0)	CHARACTER	4	CHKID	CHKPT RECORD AREA ID
4	(4)	SIGNED	2	CHKLNGTH	CHKPT LENGTH
6	(6)	SIGNED	2		RESERVED
8	(8)	CHARACTER	64	CHKJESWK	TO BE FILLED IN BY JES
72	(48)	CHARACTER	8	CHKRBA	JES EQUIVALENT OF A RBA
80	(50)	SIGNED	4	CHKDEV	DEVICE TYPE
84	(54)	SIGNED	4	CHKMOD	MODEL NUMBER
88	(58)	SIGNED	4	CHKCOPY	COPY COUNT

Table 68. Structure IAZCHK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
92	(5C)	SIGNED	4	CHKTRNC	TRANSMISSION COUNT
96	(60)	SIGNED	4	CHKREC	LOGICAL RECORD COUNT (FROM SPOOL)
100	(64)	SIGNED	4	CHKPAGE	PHYSICAL SHEET COUNT
104	(68)	CHARACTER	8	CHKPROD	PRODUCT THAT CREATED CKPT REC
112	(70)	SIGNED	4	CHKVER	VERSION OF PRODUCT
116	(74)	SIGNED	4	CHKRELS	RELEASE OF PRODUCT
120	(78)	SIGNED	4	CHKMODF	MODIFICATION LEVEL OF PRODUCT
124	(7C)	SIGNED	4	CHKSERV	SERVICE LEVEL OF PRODUCT
124	(7C)	X'80'	0	CHKLEN	"*-CHK"

Table 69. Cross Reference for IAZCHK

Name	Offset	Hex	Tag
CHK	0		0
CHKCOPY	58		
CHKDEV	50		
CHKID	0		
CHKJESWK	8		
CHKLEN	7C		80
CHKLNGLTH	4		
CHKMOD	54		
CHKMODF	78		
CHKPAGE	64		
CHKPROD	68		
CHKRBA	48		
CHKREC	60		
CHKRELS	74		
CHKSERV	7C		
CHKTRNC	5C		
CHKVER	70		
IAZCHK	0		

## IAZCMTCB information

### IAZCMTCB heading information

<b>Common name:</b>	IAZNJTCP Main task control block
<b>Macro ID:</b>	IAZCMTCB
<b>DSECT name:</b>	MTCB
<b>Owning component:</b>	JES Common (SC141)



**Eye-catcher ID:** MTCB  
Offset: 0  
Length: 6

**Storage attributes:** Subpool: 0  
Key: 0  
Residency: Any  
Virtual storage below 2G, real storage anywhere,  
in the private storage of the IAZNJTCP address space.

**Size:** See MTCBLEN

**Created by:** IAZNJTCP address space initialization

**Pointed to by:** mtcbptra field of the IAZNJTCP local data area

**Serialization:** None required

**Function:** IAZCMTCB is the main task control block for NJETCP server address space.

## IAZCMTCB mapping

Table 70. Structure MTCB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MTCB	
0	(0)	CHARACTER	6	MTCB_ID	Eye catcher
0	(0)	X'1'	0	MTCB_VONE	"1" Version 1
0	(0)	X'1'	0	MTCB_CVER	"mtcb_vone" Current version
6	(6)	ADDRESS	1	MTCB_VERSION	Version of mapping
7	(7)	BITSTRING	1	MTCBFLG1	Flag byte 1
		1... ....		STOSHORT	"B'10000000'" Storage shortage situation
		.1.. ....		ACPTRTRY	"B'01000000'" Retry the accept call
		..1. ....		SRVRINIT	"B'00100000'" Server is initialized
		...1 ....		DIAGMODE	"B'00010000'" Server is in diag mode. All the sockets created for the server from this point will get tracing enabled by default
		.... 1...		FLSCKCHK	"B'00001000'" Main task came out of wait to check for any failed sockets
		.... .1..		MFLG1RV2	"B'00000100'" Reserved for IBM
		.... ..1.		MFLG1RV3	"B'00000010'" Reserved for IBM
		.... ...1		MFLG1RV4	"B'00000001'" Reserved for IBM
8	(8)	CHARACTER	1	MTCB_SRVFAMILY	This field is filled when the server obtains an IPV6 or IPV4 socket. When server obtains a IPV6 socket, it means IPV6 is enabled on the local node's TCP/IP stack. This is used by IAZNJSTK's get_rmt_IPad() to make decisions on how to issue getaddrinfo() call to resolve IP name into IP addresses for outbound work
9	(9)	CHARACTER	1	MTCB_BNDFAMILY	The address family of the IP address that the server was able to successfully bind to. This field is used for obtaining a client id for the server main task
10	(A)	CHARACTER	255	MTCB_HOST_NAME	The name of the host processor that the program is running on

Table 70. Structure MTCB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
265	(109)	BITSTRING	1	MTCBFLG2	Flag byte two
Values for field "mtcbflg2"					
		1... ....		JESTRACE	"B'10000000" JES trace enabled
		.1.. ....		INTTRACE	"B'01000000" Internal trace enabled
		..1. ....		VRBTRACE	"B'00100000" Verbose trace enabled
		...1 ....		MFLG2RV1	"B'00010000" Reserved for IBM
		.... 1...		MFLG2RV2	"B'00001000" Reserved for IBM
		.... .1..		MFLG2RV3	"B'00000100" Reserved for IBM
		.... ..1.		MFLG2RV4	"B'00000010" Reserved for IBM
		.... ...1		MFLG2RV5	"B'00000001" Reserved for IBM
268	(10C)	ADDRESS	4	MTCB_SOCKCHNH	Socket chain header
272	(110)	ADDRESS	4	MTCB_SOCKCHNT	Socket chain trailer
276	(114)	ADDRESS	4	MTCB_RESPTR	Pointer to a linked list of one or more addrinfo structures returned by getaddrinfo()
280	(118)	SIGNED	4	MTCB_SRVSOCK	Server socket for the NJETCP server
284	(11C)	SIGNED	4	MTCB_ACCEPT_ECB	ECB to be posted on BPX1AI0() call
288	(120)	SIGNED	4	MTCB_STSK_INIT_ECB	ECB to be posted when subtask inits
292	(124)	SIGNED	4	MTCB_CLNSOCK_ECB	This ecb is posted when the socket chain is to be cleaned up.
296	(128)	SIGNED	2	MTCB_SRVPORT	Server Port
300	(12C)	SIGNED	4	MTCB_SOCK_COUNT	Sockets count
304	(130)	SIGNED	4	MTCB_MAX_SOCKETS	Max socket number
		1... ....		MTCBENDL	"B'10000000" End of ECBLIST indic.
304	(130)	X'134'	0	MTCBLEN	"*-MTCB" End of ECBLIST indic.

Table 71. Cross Reference for IAZCMTCB

Name	Offset	Hex Tag
ACPTRTRY	7	40
DIAGMODE	7	10
FLSCKCHK	7	8
INTTRACE	109	40
JESTRACE	109	80
MFLG1RV2	7	4
MFLG1RV3	7	2
MFLG1RV4	7	1
MFLG2RV1	109	10
MFLG2RV2	109	8
MFLG2RV3	109	4
MFLG2RV4	109	2
MFLG2RV5	109	1
MTCB	0	
MTCB_ACCEPT_ECB	11C	

Table 71. Cross Reference for IAZCMTCB (continued)

Name	Offset	Hex Tag
MTCB_BNDFAMILY	9	
MTCB_CLNSOCK_ECB	124	
MTCB_CVER	0	1
MTCB_HOST_NAME	A	40404040
MTCB_ID	0	D4E3C3C2
MTCB_MAX_SOCKETS	130	
MTCB_RESPTR	114	
MTCB_SOCK_COUNT	12C	
MTCB_SOCKCHNH	10C	
MTCB_SOCKCHNT	110	
MTCB_SRVFAMILY	8	
MTCB_SRVPORT	128	
MTCB_SRVSOCK	118	
MTCB_STSK_INIT_ECB	120	
MTCB_VERSION	6	
MTCB_VONE	0	1
MTCBENDL	130	80
MTCBFLG1	7	
MTCBFLG2	109	
MTCBLEN	130	134
SRVRINIT	7	20
STOSHORT	7	80
VRBTRACE	109	20

## IAZCSOCK information

### IAZCSOCK heading information

<b>Common name:</b>	IAZ Socket chain element
<b>Macro ID:</b>	IAZCSOCK
<b>DSECT name:</b>	SOCK
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	INSOCK/OUTSOCK Offset: 0 Length: 8
<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Any Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.

**Size:** See SOCKLEN

**Created by:** IAZNJSTK initialization processing

**Pointed to by:** SOCK\_CHN field of the IAZNJSTK local data area

**Serialization:** None required

**Function:** Socket chain structure representing a NETSRV socket.

## IAZCSOCK mapping

Table 72. Structure SOCK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SOCK	
0	(0)	CHARACTER	8	SOCK_EYE	Eye catcher
8	(8)	ADDRESS	4	SOCK_NEXT	Ptr to NEXT element
12	(C)	ADDRESS	4	SOCK_PREV	Ptr to PREV element
16	(10)	ADDRESS	4	SOCK_MTCBP	Pointer to the IAZCMTCB data area
20	(14)	ADDRESS	4	SOCK_MTSTP	Pointer to the IAZCMTST data area for this connection
24	(18)	ADDRESS	4	SOCK_NRQP	Pointer to the dequeued NRQ
28	(1C)	ADDRESS	4	SOCK_NMSP	Pointer to the dequeued NMS
32	(20)	SIGNED	4	SOCK_BUFSZ	Negotiated buffer size for the socket
36	(24)	ADDRESS	4	SOCK_DBC_XMTR(8)	8 DBC ptrs for each of the 8 transmitters
68	(44)	ADDRESS	4	SOCK_DBC_RCVR(8)	8 DBC ptrs for each of the 8 receivers
100	(64)	CHARACTER	128	SOCK_XMTR_DBCST(8)	DBC status flags for transmitters
228	(E4)	CHARACTER	128	SOCK_RCVR_DBCST(8)	DBC status flags for receivers
356	(164)	CHARACTER	1	SOCK_ALLSTRM_DBCST(8)	DBC status flags for unassigned subdevices
<pre> ----- ===== ----- IMPORTANT ===== ----- TCPSBCT and TCPRBCT are fields defined in IAZCDEFS. If they are changed in IAZCDEFS, they have to be changed here. ----- ===== ----- </pre>					
356	(164)	X'8'	0	TCPSBCT	"8"
356	(164)	X'8'	0	TCPRBCT	"8"
484	(1E4)	ADDRESS	4	SOCK_XRB_SEND_PTRS(0)	
Pointers to XRBSTR structures used to C					
516	(204)	ADDRESS	4	SOCK_XRB_RECV_PTRS(0)	
Pointers to XRBSTR structures used to C					
548	(224)	ADDRESS	4	SOCK_COMP_WAREA_PT	A pointer to the work buffer used by compression routine
552	(228)	ADDRESS	4	SOCK_DCMP_WAREA_PT	Pointer to the work buffer used by decompression routine
556	(22C)	ADDRESS	4	SOCK_SPLT_WAREA_PT	POINTER TO THE WORK buffer used by spltdrec routine
560	(230)	SIGNED	4	SOCK_TCP_RETCD	TCP/IP error code used by IAZNJTCP and IAZNJSTK

Table 72. Structure SOCK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
564	(234)	CHARACTER	1	SOCK_CURRCB	RCB of data for which a check would be made to see if there is any transmission buffer that is currently being filled up
565	(235)	CHARACTER	14	SOCK_JFCSMSK	FCS mask to be sent during transmitter sends
579	(243)	CHARACTER	14	SOCK_SFCSMSK	FCS MASK OF ALL THE receivers on the local node
593	(251)	CHARACTER	16	SOCK_SRVIPAD	128-BIT IP address of this server
609	(261)	CHARACTER	16	SOCK_RMTIPAD	128-BIT IP address of remote peer
625	(271)	CHARACTER	255	SOCK_RMT_HOSTNM	Host name of the remote peer
880	(370)	CHARACTER	8	SOCK_RMTNDNM	Node name of remote peer - populated from open record for inbound requests AND FROM IAZYTNRQ FOR OUTBOUND REQUESTS
888	(378)	SIGNED	2	SOCK_SRVPORT	Port number of this server
890	(37A)	SIGNED	2	SOCK_RMTPORT	Port number of the remote peer
892	(37C)	CHARACTER	40	SOCKNLDV(0)	
892	(37C)	SIGNED	4	_SOCKNJT	JTNUM (Outbound SYSIN STREAMS)
896	(380)	SIGNED	4	_SOCKNJR	JRNUM (Inbound SYSIN streams)
900	(384)	SIGNED	4	_SOCKNST	STNUM (Outbound SYSOUT streams)
904	(388)	SIGNED	4	_SOCKNSR	SRNUM (Inbound SYSOUT streams)
908	(38C)	CHARACTER	8	_XMTRMSK	RCB mask of the transmitters for the socket
916	(394)	CHARACTER	8	_RCVRMSK	RCB mask of the receivers for the socket
924	(39C)	CHARACTER	8	_ALLSTRMSK	RCB mask for all the possible streams for the socket
932	(3A4)	BITSTRING	1	SOCK_FLG1	FLAG BYTE ONE
Values for field "SOCK_FLG1"					
		1... ....		SOCK_F1_CONNECT_ISSUED	"B'10000000" connect() has been issued but connect() did not return
		.1.. ....		SOCK_F1_CONNECTED	"B'01000000" Connect successful with remote peer
		..1. ....		SOCK_F1_DUP_CONNECT	"B'00100000" Duplicate socket chain element
		...1 ....		SOCK_F1_RESERVED_10	"B'00010000" Reserved for IBM
		.... 1...		SOCK_F1_DUP_ERROR	"B'00001000" Duplicate already set
		.... .1..		SOCK_F1_DIAG_ACTIVE	"B'00000100" Socket is in diag mode - Tracing is active.
		.... ..1.		SOCK_F1_SEND_INIT	"B'00000010" Send initiated on socket
		.... ...1		SOCK_F1_RECV_INIT	"B'00000001" Recv initiated on socket
933	(3A5)	BITSTRING	1	SOCK_FLG2	Flag byte
Values for field "SOCK_FLG2"					
		1... ....		SOCK_F2_ALLWMRCB	"B'10000000" Multiple RCBs are allowed in the transmission buffer
		.1.. ....		SOCK_F2_NJE_SIGNED_ON	"B'01000000" The socket has signed-on NJE wise

Table 72. Structure SOCK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		SOCK_F2_JES_TRACE	"B'00100000'" JES event and record trace active for conn.
		...1 ....		SOCK_F2_INT_TRACE	"B'00010000'" IAZ internal trace - trace data supplied to JES in IAZHTTRC format
		.... 1...		SOCK_F2_VRB_TRACE	"B'00001000'" Verbose trace -controls message verbosity
		.... .1..		SOCK_F2_RC_TO_SEND	"B'00000100'" Indicate RC has to be sent on an unsupported stream
		.... ..1.		SOCK_F2_1ST_BUFFER_SENT	"B'00000010'" Indicate the first buffer is sent on socket
		.... ...1		SOCK_F2_ALLWMHDRS	"B'00000001'" NRQIPACK is set in "I" rcd to allow multiple NJE headers in a single buffer
934	(3A6)	BITSTRING	1	SOCK_FLG3	Flag byte
		1... ....		SOCK_F3_STOP_CONN	"B'10000000'" Stop connection request Received for the connection
		.1.. ....		SOCK_F3_NO_RIPI	"B'01000000'" NCCIRIF set during NJE signon
		..1. ....		SOCK_F3_SP_SEND_INI	"B'00100000'" Send initiated in special control record buffer
		...1 ....		SOCK_F3_NO_XRB_SEND_AVAIL	"B'00010000'" No XRB send buffers available
		.... 1...		SOCK_F3_RES_FLG3_08	"B'00001000'" Reserved for IBM
		.... .1..		SOCK_F3_RES_FLG3_04	"B'00000100'" Reserved for IBM
		.... ..1.		SOCK_F3_RES_FLG3_02	"B'00000010'" Reserved for IBM
		.... ...1		SOCK_F3_RES_FLG3_01	"B'00000001'" Reserved for IBM
935	(3A7)	CHARACTER	1	SOCK_FAMILY	DOMAIN NAME OF THE REMOTE PEER
936	(3A8)	SIGNED	4	SOCK_ID	Socket ID
940	(3AC)	SIGNED	4	SOCK_TCP_RSNCDE	TCP/IP reason code
944	(3B0)	ADDRESS	4	SOCK_CURINREC	Pointer to current char in input record
948	(3B4)	ADDRESS	4	SOCK_CUROUBUF	Pointer to current char in output buffer
952	(3B8)	ADDRESS	4	SOCK_CURINBUF	Pointer to current char in input buffer
956	(3BC)	ADDRESS	4	SOCK_CUROUREC	Pointer to current char in output record
956	(3BC)	X'3C0'	0	SOCKLEN	"*-SOCK"

DBCST structure (C structure is in IAZCMSTR)

Table 73. Cross Reference for IAZCSOCK

Name	Offset	Hex Tag
_ALLSTRMSK	39C	
_RCVRMSK	394	
_SOCKNJR	380	
_SOCKNJT	37C	
_SOCKNSR	388	
_SOCKNST	384	
_XMTRMSK	38C	

Table 73. Cross Reference for IAZCSOCK (continued)

Name	Offset	Hex Tag
SOCK	0	
SOCK_ALLSTRM_DBCST	164	
SOCK_BUFSZ	20	
SOCK_COMP_WAREA_PT	224	
SOCK_CURINBUF	3B8	
SOCK_CURINREC	3B0	
SOCK_CUROUBUF	3B4	
SOCK_CUROUREC	3BC	
SOCK_CURRCB	234	
SOCK_DBC_RCVR	44	
SOCK_DBC_XMTR	24	
SOCK_DCMP_WAREA_PT	228	
SOCK_EYE	0	
SOCK_FAMILY	3A7	
SOCK_FLG1	3A4	
SOCK_FLG2	3A5	
SOCK_FLG3	3A6	
SOCK_F1_CONNECT_ISSUED	3A4	80
SOCK_F1_CONNECTED	3A4	40
SOCK_F1_DIAG_ACTIVE	3A4	4
SOCK_F1_DUP_CONNECT	3A4	20
SOCK_F1_DUP_ERROR	3A4	8
SOCK_F1_RECV_INIT	3A4	1
SOCK_F1_RESERVED_10	3A4	10
SOCK_F1_SEND_INIT	3A4	2
SOCK_F2_ALLWMHDRS	3A5	1
SOCK_F2_ALLWMRCB	3A5	80
SOCK_F2_INT_TRACE	3A5	10
SOCK_F2_JES_TRACE	3A5	20
SOCK_F2_NJE_SIGNED_ON	3A5	40
SOCK_F2_RC_TO_SEND	3A5	4
SOCK_F2_VRB_TRACE	3A5	8
SOCK_F2_1ST_BUFFER_SENT	3A5	2
SOCK_F3_NO_RIPI	3A6	40
SOCK_F3_NO_XRB_SEND_AVAIL	3A6	10
SOCK_F3_RES_FLG3_01	3A6	1
SOCK_F3_RES_FLG3_02	3A6	2
SOCK_F3_RES_FLG3_04	3A6	4
SOCK_F3_RES_FLG3_08	3A6	8

Table 73. Cross Reference for IAZCSOCK (continued)

Name	Offset	Hex Tag
SOCK_F3_SP_SEND_INI	3A6	20
SOCK_F3_STOP_CONN	3A6	80
SOCK_ID	3A8	
SOCK_JFCSMSK	235	
SOCK_MTCBP	10	
SOCK_MTSTP	14	
SOCK_NEXT	8	
SOCK_NMSP	1C	
SOCK_NRQP	18	
SOCK_PREV	C	
SOCK_RCVR_DBCST	E4	
SOCK_RMT_HOSTNM	271	
SOCK_RMTIPAD	261	
SOCK_RMTNDNM	370	
SOCK_RMTPORT	37A	
SOCK_SFCSMSK	243	
SOCK_SPLT_WAREA_PT	22C	
SOCK_SRVIPAD	251	
SOCK_SRVPORT	378	
SOCK_TCP_RETCDE	230	
SOCK_TCP_RSNCDE	3AC	
SOCK_XMTR_DBCST	64	
SOCK_XRB_RECV_PTRS	204	
SOCK_XRB_SEND_PTRS	1E4	
SOCKLEN	3BC	3C0
SOCKNLDV	37C	
TCPRBCT	164	8
TCPSBCT	164	8

## IAZCTKN information

### IAZCTKN programming interface information

**ONLY** the following field is part of the programming interface information:

- CTKNSORT

### IAZCTKN heading information

**Common name:** Allocation Client Token

**Macro ID:** IAZCTKN

**DSECT name:** CTOKEN



**Owning component:** JES Common (SC141)

**Eye-catcher ID:** None

**Storage attributes:** Subpool: any  
Key: Key of SSI caller  
Residency: Any

**Size:** See CTKNSIZE equate

**Created by:** JES2 and JES3

**Pointed to by:** The DALRTCTK text unit provided by the SVC 99 caller

**Serialization:** None required

**Function:** Defines the client token used for allocations originated by a server on behalf of a client and used later by the server to interface with JES.

## IAZCTKN mapping

Table 74. Structure CTOKEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CTOKEN	
All fields except for CTKNJESD are common between JES2 and JES3.					
0	(0)	SIGNED	1	CTKNJESI	Identifies which JES built the CTOKEN
0	(0)	X'2'	0	CTKNJES2	"2" Identifier for JES2
0	(0)	X'3'	0	CTKNJES3	"3" Identifier for JES3
1	(1)	SIGNED	1	CTKNPLVL	Product level of CTOKEN creator
2	(2)	SIGNED	1	CTKNSLVL	Service level of CTOKEN creator
3	(3)	BITSTRING	1		Reserved alignment byte
4	(4)	SIGNED	4	CTKNSORT	Sort key
8	(8)	SIGNED	4	(0)	Full word alignment
8	(8)	BITSTRING	8	CTKNBMAP	Bit map for supported bytes in the JES dependent area
16	(10)	CHARACTER	64	CTKNJESD	JES dependent section
16	(10)	X'50'	0	CTOKEND	"*" End of CTOKEN
16	(10)	X'50'	0	CTKNSIZE	"CTOKEND-CTOKEN" Size of CTOKEN

Table 75. Cross Reference for IAZCTKN

Name	Offset	Hex Tag
CTKNBMAP	8	
CTKNJESD	10	
CTKNJESI	0	
CTKNJES2	0	2
CTKNJES3	0	3
CTKNPLVL	1	
CTKNSIZE	10	50
CTKNSLVL	2	

Table 75. Cross Reference for IAZCTKN (continued)

Name	Offset	Hex Tag
CTKNSORT	4	
CTOKEN	0	
CTOKEND	10	50

## IAZCVDEV information

### IAZCVDEV programming interface information

IAZCVDEV is a programming interface.

### IAZCVDEV heading information

<b>Common name:</b>	JES2 Parameter List for Device Name
<b>Macro ID:</b>	IAZCVDEV
<b>DSECT name:</b>	CVDEV
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	CVDV Offset: CVDVSSID Length: L'CVDVSSID
<b>Storage attributes:</b>	Subpool: caller Key: Any Residency: Virtual = any real = any
<b>Size:</b>	See CVDVSZE
<b>Created by:</b>	caller of SSI function 'SSOBSSJI' = 71
<b>Pointed to by:</b>	SSJIUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by authorized programs to request the device name conversion from binary to EBCDIC.

### IAZCVDEV mapping

Table 76. Structure CVDEV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CVDEV	
0	(0)	CHARACTER	4	CVDVSSID	I.Eye catcher
4	(4)	ADDRESS	2	CVDVLEN	I.Length of CVDEV parameter list
6	(6)	SIGNED	2	CVDEVVRN	I.Parm list version number
6	(6)	X'1'	0	CVDVVER1	"1" Service version number of IAZCVDEV
6	(6)	X'1'	0	CVDVVER#	"1" Current version number
8	(8)	SIGNED	2	CVDVVER0	0.Subsystem version number
10	(A)	SIGNED	2		Reserved

Table 76. Structure CVDEV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Device Name Input and Output Section If the device type is not known, the CVDVNAME field will be set to "UNKNOWN"					
12	(C)	BITSTRING	4		Reserved for future use
16	(10)	BITSTRING	1		A filler byte to preserve alignment
17	(11)	BITSTRING	3	CVDVID	I.Device ID in binary
20	(14)	BITSTRING	4		Reserved for future use
24	(18)	CHARACTER	18	CVDVNAME	O.Converted name in EBCDIC
42	(2A)	BITSTRING	14		Reserved for future use
42	(2A)	X'38'	0	CVDVSZE	"*-CVDEV" Size of CVDEV
CVDEV reason code The reason code is placed in SSJIRETN Values of SSJIRETN when SSOBRETN is zero for function (value of SSJIFREQ) SSJICVDV.					
42	(2A)	X'0'	0	CVDVOK	"0" Success
42	(2A)	X'4'	0	CVDVERR	"4" *** NOT USED ***
42	(2A)	X'8'	0	CVDVILG	"8" Eye catcher is not initialized correctly

Table 77. Cross Reference for IAZCVDEV

Name	Offset	Hex	Tag
CVDEV	0		
CVDEVVRN	6		
CVDVERR	2A		4
CVDVID	11		
CVDVILG	2A		8
CVDVLEN	4		
CVDVNAME	18		
CVDVOK	2A		0
CVDVSSID	0		
CVDVSZE	2A		38
CVDVVER#	6		1
CVDVVER0	8		
CVDVVER1	6		1

## IAZDSINF information

### IAZDSINF programming interface information

IAZDSINF is a programming interface.

### IAZDSINF heading information

**Common name:** Data Set Information mapping

**Macro ID:** IAZDSINF

**DSECT name:** DSINF

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** DSIF  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: caller  
Key: Any  
Residency: Any

**Size:** See DSINSIZE equate

**Created by:** Caller of JES access method GET service

**Pointed to by:** RPLERMSA in the IFGRPL mapping macro

**Serialization:** None required

**Function:** This DSECT maps the information returned on the JES access method GET interface. The caller provides the address of the area in RPLERMSA and the length of the area in RPLEMLEN. JES will then fill in this area on a successful GET (RC=0).  
In order for JES to set the output area, the caller must set the eyecatcher in the first 4 bytes of the area passed.

## IAZDSINF mapping

Table 78. Structure DSINF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DSINF	
0	(0)	CHARACTER	4	DSINEYE	Eyecatcher (set by caller)
4	(4)	SIGNED	2	DSINLEN	Length of area filled in
6	(6)	BITSTRING	1	DSINVER	Version of data
6	(6)	X'1'	0	DSINVER1	"1" Version 1 of IAZDSINF
6	(6)	X'1'	0	DSINVERC	"DSINVER1" Current version of data
7	(7)	BITSTRING	1	DSINFLG1	Flag bytes
		1... ....		DSIN1TRC	"B'10000000" Returned area truncated
		.1.. ....		DSIN1RSK	"B'01000000" Records skipped due to I/O error on GET
		..1. ....		DSIN1ERR	"B'00100000" Current record is error message text
		...1 ....		DSIN1WAR	"B'00010000" Current record is warning message text
		.... 1...		DSIN1JEC	"B'00001000" Start or continuation of a JECL statement
8	(8)	SIGNED	8	DSINREC	Record number of returned record within current data set
16	(10)	SIGNED	8	DSINLGLR	Record number of returned record within logical data set
24	(18)	DBL WORD	8	DSINSTKE	Time stamp of record PUT if available (STKE format)
32	(20)	SIGNED	4	DSINDSNU	JES data set number where record was read from

Table 78. Structure DSINF (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
36	(24)	SIGNED	4	DSINJBNO	JES binary job number of owning job
40	(28)	CHARACTER	8	DSINJBID	JES job id of owning job
Next instream dataset number to be assigned by JES. It starts with 1 and is bumped by 1 after each in-stream dataset is encountered in the job stream.					
48	(30)	SIGNED	4	DSINNINS	Next instream dataset nr
52	(34)	SIGNED	4		Reserved
52	(34)	X'38'	0	DSINSIZ1	"*-DSINF" Version 1 size of area
52	(34)	X'38'	0	DSINSIZE	"*-DSINF" Size of area

Table 79. Cross Reference for IAZDSINF

Name	Offset	Hex	Tag
DSINDSNU	20		
DSINEYE	0	C4E2C9D5	
DSINF	0		
DSINFLG1	7		
DSINJBID	28		
DSINJBNO	24		
DSINLEN	4		
DSINLGLR	10		
DSINNINS	30		
DSINRECN	8		
DSINSIZE	34		38
DSINSIZ1	34		38
DSINSTKE	18		
DSINVER	6		
DSINVERC	6		1
DSINVER1	6		1
DSIN1ERR	7		20
DSIN1JEC	7		8
DSIN1RSK	7		40
DSIN1TRC	7		80
DSIN1WAR	7		10

## IAZENF58 information

### IAZENF58 programming interface information

The following fields are **NOT** programming interface information:

- ENF58\_DEVICE\_JESDATA
- ENF58\_EXT\_SIZE

- ENF58\_EXT\_SIZE1
- ENF58\_EXT\_SIZE2
- ENF58\_MAXSIZE
- ENF58\_SIZE1
- ENF58\_SIZE2
- ENF58\_SIZE3
- ENF58\_SIZE4
- ENF58\_SIZE5

## IAZENF58 heading information

<b>Common name:</b>	ENF58 Parameter List
<b>Macro ID:</b>	IAZENF58
<b>DSECT name:</b>	ENF58
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	ENF58 Offset: ENF58_ID-ENF58 Length: L'ENF58_ID
<b>Storage attributes:</b>	Subpool: 241 Key: Key 1 Residency: Any
<b>Size:</b>	Variable depending on the type of ENF58 being issued. See ENF58_LENGTH for the run-time length of the entire ENF. An ENF58 contains an extension at offset ENF58_EXT_DW_OFF from the start of the ENF. The size of the extension is contained in field ENF58_EXT_LENGTH.
<b>Created by:</b>	The Job Entry Subsystem issuing the ENF 58 signal
<b>Pointed to by:</b>	The ENFREQ parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the ENF 58 parameter list received by ENF listen exits.

## IAZENF58 mapping

Table 80. Structure ENF58

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ENF58	ENF58 mapping
0	(0)	CHARACTER	6	ENF58_ID	Eye catcher 'ENF58 '
6	(6)	BITSTRING	1	ENF58_VERSION	Version of mapping
6	(6)	X'1'	0	ENF58_VONE	"1" Version 1
6	(6)	X'2'	0	ENF58_VTWO	"2" Version 2
6	(6)	X'3'	0	ENF58_VTHREE	"3" Version 3
6	(6)	X'4'	0	ENF58_VFOUR	"4" Version 4
6	(6)	X'5'	0	ENF58_VFIVE	"5" Version 5

Table 80. Structure ENF58 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
6	(6)	X'5'	0	ENF58_CVER	"ENF58_VFIVE" Current version
7	(7)	BITSTRING	1	ENF58_EXT_DW_OFF	Offset to fixed extension (in doublewords) or 0
8	(8)	SIGNED	4	ENF58_LENGTH	Length of parameter list
12	(C)	BITSTRING	1	ENF58_QUALIFIER	Qualifier code - defined below
12	(C)	X'1'	0	ENF58_Q_PURGE	"1" Data Set was purged
12	(C)	X'2'	0	ENF58_Q_SELECT	"2" Data Set was selected
A data set has been "processed" by JES2 if a \$#DISPRO is issued to update the data set disposition. A data set has been "processed" by JES3 if the data set is complete.					
12	(C)	X'3'	0	ENF58_Q_DESELECT_PROCESSED	"3" Data set was processed
12	(C)	X'4'	0	ENF58_Q_DESELECT_NOT_PROCESSED	"4" Data set is no longer selected, disposition was not updated
12	(C)	X'5'	0	ENF58_Q_DESELECT_NOT_PROCESSED_HELD	"5" Data set is no longer selected, disposition was not updated and data set is held
12	(C)	X'6'	0	ENF58_Q_DESELECT_ERROR	"6" An error resulting in a system level hold occurred
12	(C)	X'7'	0	ENF58_Q_EOD_OK	"7" End of data set notification occurred - successful
12	(C)	X'8'	0	ENF58_Q_EOD_ERROR	"8" End of data set notification occurred - unsuccessful
12	(C)	X'9'	0	ENF58_Q_JOB_CHANGE	"9" Job-status change occurred
12	(C)	X'A'	0	ENF58_Q_TOKEN_CHANGE	"10" Client token has changed
12	(C)	X'B'	0	ENF58_Q_CHECKPOINT	"11" Checkpoint taken
12	(C)	X'C'	0	ENF58_Q_UPDATEJOE	"12" JOE1CKV update (JES2 internal use only)
12	(C)	X'D'	0	ENF58_Q_INSTANCE	"13" Additional instance of data set created
12	(C)	X'E'	0	ENF58_Q_GRP_SELECT	"14" Data set group select
12	(C)	X'F'	0	ENF58_Q_GRP_DESELECT	"15" Data set group deselect
The following equates (ENF58_Q1) define bits in the last byte of the ENF bit map qualifier (ENFPBMQ+31) - Device related has a JES2 device name in ENF58_DEVICE_JESDATA - Group related has a qualifier of ENF58_Q_GRP or ENF58_Q_CHECKPOINT					
		1... ....		ENF58_Q1_DEVICE	"B'10000000" ENF is device related
		.1.. ....		ENF58_Q1_GROUP	"B'01000000" ENF is group related
13	(D)	BITSTRING	1	ENF58_SYS_HOLD	System hold reason - refer to IAZOHLDD for possible values
14	(E)	CHARACTER	8	ENF58_JES_NAME	JES2 Member Name / JES3 MAIN name where this signal originated

Table 80. Structure ENF58 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
ENF58_REASON can contain a variety of different information depending on the ENF type being issued. ENF 58 type Information in ENF58_REASON ENF58_Q_SELECT Device/process name that selected the data set. ENF58_Q_DESELECT_PROCESSED Either process name that processed the data set or hex zeros. ENF58_Q_DESELECT_NOT_PROCESSED Either process name that deselected the data set or hex zeros. ENF58_Q_DESELECT_ERROR If ENF58_SYS_HOLD indicates that a RELDS Unprintable error occurred, RDSMIDSE from the IAZFSIP RELDS parameter list. Otherwise, either process name that kept the data set in system level hold or hex zeros ENF58_Q_JOB_CHANGE Status change that occurred for the job (eg. PURGED) ENF58_Q_GRP_SELECT Device name that selected the data set group.					
22	(16)	CHARACTER	18	ENF58_REASON	Reason text
40	(28)	DBL WORD	8	(0)	Establish alignment
40	(28)	BITSTRING	80	ENF58_CTOKEN	Data Set Client Token
40	(28)	X'78'	0	ENF58_SIZE1	"*-ENF58" Small Version of ENF58 ends here
120	(78)	BITSTRING	80	ENF58_NEW_CTOKEN	New client token that should replace the Ctoken for a TOKEN_CHANGE ENF type, or be added for a INSTANCE request.
120	(78)	X'C8'	0	ENF58_SIZE2	"*-ENF58" ENF58 for TOKEN_CHANGE ends here
120	(78)	SIGNED	4	ENF58_COPY	Checkpointed copy count
124	(7C)	SIGNED	4	ENF58_RECORD	Checkpointed current record
128	(80)	SIGNED	4	ENF58_PAGE	Checkpointed current page
132	(84)	BITSTRING	4		Reserved
136	(88)	DBL WORD	8	(0)	Establish alignment
136	(88)	X'88'	0	ENF58_SIZE3	"*-ENF58" ENF58 for checkpoints ends here
Used only if ENF58_Q_UPDATEJOE					
120	(78)	SIGNED	4	ENF58_JOEINDEX	Offset of work JOE
124	(7C)	BITSTRING	4		Reserved
128	(80)	DBL WORD	8	(0)	Establish alignment
128	(80)	X'80'	0	ENF58_SIZE4	"*-ENF58" ENF58 for JOE Update ends here
Used only if ENF58_Q_GRP_SELECT					
120	(78)	SIGNED	4	ENF58_TOT_PAGE	Total page count
124	(7C)	SIGNED	4	ENF58_TOT_RECORD	Total record count
128	(80)	CHARACTER	8	ENF58_JOB_NAME	Job name of selected job
136	(88)	BITSTRING	8	ENF58_GS_JESDATA	JES-specific data
136	(88)	X'90'	0	ENF58_SIZE5	"*-ENF58" ENF58 for JOE Select ends here
200	(C8)	X'C8'	0	ENF58_MAXSIZE	"*-ENF58" Largest base ENF58 parm 1st



Table 81. Structure ENF58\_EXT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF58_EXT	ENF58 fixed extension
0	(0)	CHARACTER	6	ENF58_EXT_EYE	Eyecatcher
6	(6)	SIGNED	2	ENF58_EXT_LENGTH	Length of fixed extension
8	(8)	BITSTRING	8	ENF58_JESPLEX_ID	Unique JESPLEX token
16	(10)	CHARACTER	10	ENF58_DEVICE	Related device name if any
26	(1A)	BITSTRING	30	ENF58_DEVICE_JESDATA	JES-related device information
56	(38)	DBL WORD	8	(0)	
56	(38)	X'38'	0	ENF58_EXT_SIZE1	"*-ENF58_EXT" Size of fixed extension version 1
56	(38)	CHARACTER	64	ENF58_JOB_CORR	Job correlator
56	(38)	X'78'	0	ENF58_EXT_SIZE2	"*-ENF58_EXT" Size of fixed extension version 2
120	(78)	DBL WORD	8	(0)	Establish alignment
120	(78)	X'78'	0	ENF58_EXT_SIZE	"*-ENF58_EXT" Size of fixed extension

Table 82. Cross Reference for IAZENF58

Name	Offset	Hex	Tag
ENF58	0		
ENF58_COPY	78		
ENF58_CTOKEN	28		
ENF58_CVER	6		5
ENF58_DEVICE	10		
ENF58_DEVICE_JESDATA	1A		
ENF58_EXT	0		
ENF58_EXT_DW_OFF	7		
ENF58_EXT_EYE	0	C5D5C6F5	
ENF58_EXT_LENGTH	6		
ENF58_EXT_SIZE	78		78
ENF58_EXT_SIZE1	38		38
ENF58_EXT_SIZE2	38		78
ENF58_GS_JESDATA	88		
ENF58_ID	0		
ENF58_JES_NAME	E		
ENF58_JESPLEX_ID	8		
ENF58_JOB_CORR	38		
ENF58_JOB_NAME	80		
ENF58_JOEINDEX	78		
ENF58_LENGTH	8		
ENF58_MAXSIZE	C8		C8
ENF58_NEW_CTOKEN	78		
ENF58_PAGE	80		
ENF58_Q_CHECKPOINT	C		B

Table 82. Cross Reference for IAZENF58 (continued)

Name	Offset	Hex Tag
ENF58_Q_DESELECT_ERROR	C	6
ENF58_Q_DESELECT_NOT_PROCESSED	C	4
ENF58_Q_DESELECT_NOT_PROCESSED_HELD	C	5
ENF58_Q_DESELECT_PROCESSED	C	3
ENF58_Q_EOD_ERROR	C	8
ENF58_Q_EOD_OK	C	7
ENF58_Q_GRP_DESELECT	C	F
ENF58_Q_GRP_SELECT	C	E
ENF58_Q_INSTANCE	C	D
ENF58_Q_JOB_CHANGE	C	9
ENF58_Q_PURGE	C	1
ENF58_Q_SELECT	C	2
ENF58_Q_TOKEN_CHANGE	C	A
ENF58_Q_UPDATEJOE	C	C
ENF58_QUALIFIER	C	
ENF58_Q1_DEVICE	C	80
ENF58_Q1_GROUP	C	40
ENF58_REASON	16	
ENF58_RECORD	7C	
ENF58_SIZE1	28	78
ENF58_SIZE2	78	C8
ENF58_SIZE3	88	88
ENF58_SIZE4	80	80
ENF58_SIZE5	88	90
ENF58_SYS_HOLD	D	
ENF58_TOT_PAGE	78	
ENF58_TOT_RECORD	7C	
ENF58_VERSION	6	
ENF58_VFIVE	6	5
ENF58_VFOUR	6	4
ENF58_VONE	6	1
ENF58_VTHREE	6	3
ENF58_VTWO	6	2

## IAZENF70 information

### IAZENF70 programming interface information

IAZENF70 is a programming interface.

## IAZENF70 heading information

**Common name:** ENF70 Parameter List

**Macro ID:** IAZENF70

**DSECT name:** ENF70

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** ENF70  
Offset: ENF70\_ID-ENF70  
Length: L'ENF70\_ID

**Storage attributes:** Subpool: 241  
Key: Key 1  
Residency: Any

**Size:** Variable depending on the type of ENF70 being issued. See ENF70\_LENGTH for the run-time length.

**Created by:** The Job Entry Subsystem issuing the ENF 70 signal

**Pointed to by:** The ENFREQ parameter list

**Serialization:** None required

**Function:** Maps the ENF 70 parameter list received by ENF listen exits.

## IAZENF70 mapping

Table 83. Structure ENF70

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF70	ENF70 mapping
0	(0)	CHARACTER	6	ENF70_ID	Eye catcher 'ENF70 '
6	(6)	BITSTRING	1	ENF70_VERSION	Version of mapping
6	(6)	X'1'	0	ENF70_VONE	"1" Version 1
6	(6)	X'2'	0	ENF70_VTWO	"2" Version 2
6	(6)	X'2'	0	ENF70_CVER	"ENF70_VTWO" Current version
7	(7)	BITSTRING	1		Reserved
8	(8)	SIGNED	4	ENF70_LENGTH	Total length of ENF70 data
12	(C)	SIGNED	2	ENF70_FIXED_LENGTH	Length of fixed section
14	(E)	BITSTRING	1	ENF70_QUALIFIER	Qualifier code - defined below
14	(E)	X'1'	0	ENF70_SELECT	"1" Job was selected
14	(E)	X'2'	0	ENF70_DESELECT	"2" Job was processed
14	(E)	X'3'	0	ENF70_CHANGE	"3" Job queued to new phase of processing
14	(E)	X'4'	0	ENF70_PURGE	"4" Job was purged
The following equates (ENF70_Q1) define bits in the last byte of the ENF bit map qualifier (ENFPBMQ+31)					
		1... ....		ENF70_Q1_DEVICE	"B'10000000'" ENF is device related ENF70_DTYPE_DEV is set
15	(F)	BITSTRING	3		Reserved
18	(12)	CHARACTER	8	ENF70_JES_NAME	JES2 Member Name / JES3 MAIN name where this signal originated

Table 83. Structure ENF70 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
26	(1A)	BITSTRING	8	ENF70_JESPLEX_ID	Unique JESPLEX identifier
34	(22)	CHARACTER	8	ENF70_JOBNAME	Job name
42	(2A)	CHARACTER	8	ENF70_JOBID	Job ID
50	(32)	CHARACTER	8	ENF70_ORG_JOBID	Original Job ID
58	(3A)	CHARACTER	8	ENF70_ORG_NODE	Origin Node
66	(42)	CHARACTER	8	ENF70_JOBCLASS	Job Class
74	(4A)	CHARACTER	8	ENF70_SRVCLASS	Service class
82	(52)	BITSTRING	2		Reserved
84	(54)	SIGNED	4	ENF70_RDR_DATE	Reader on date
88	(58)	SIGNED	4	ENF70_RDR_TIME	Reader on time
92	(5C)	BITSTRING	4	ENF70_MAXCC(0)	Job completion code
92	(5C)	BITSTRING	1	ENF70_COMP	Job completion indicator
		1... ....		ENF70_CAB	"X'80'" ABEND CODE
		.1.. ....		ENF70_CCC	"X'40'" Completion code
		..1. ....		ENF70_CREQ	"X'20'" JOBR completion code set
92	(5C)	X'0'	0	ENF70_CUNK	"0" No completion info
92	(5C)	X'1'	0	ENF70_CNRM	"1" Job ended normally
92	(5C)	X'2'	0	ENF70_CEC	"2" Job ended by cc
92	(5C)	X'3'	0	ENF70_CJCL	"3" Job had a JCL error
92	(5C)	X'4'	0	ENF70_CCAN	"4" Job was canceled
92	(5C)	X'5'	0	ENF70_CABN	"5" Job ABENDED
92	(5C)	X'6'	0	ENF70_CCAB	"6" Converter ABENDED
92	(5C)	X'7'	0	ENF70_CSEC	"7" Security error
92	(5C)	X'8'	0	ENF70_CEO	"8" Job ABENDED in end of memory processing
92	(5C)	X'9'	0	ENF70_CCNV	"9" Converter error
92	(5C)	X'A'	0	ENF70_CSYS	"10" System failure
92	(5C)	X'B'	0	ENF70_CFLU	"11" Job has been flushed
93	(5D)	BITSTRING	3	ENF70_CODE	Completion code (if applicable), or ABEND codes (system code in first 12 bits, user code in last 12 bits).
96	(60)	BITSTRING	1	ENF70_QUEUE	Current phase job is queued for
JES3 Phases					
96	(60)	X'0'	0	ENF70_Q_NONE	"0" No previous queue (job create)
96	(60)	X'2'	0	ENF70_Q_CONVERT	"2" Conversion
96	(60)	X'3'	0	ENF70_Q_PSCBAT	"3" Postscan (batch)
96	(60)	X'4'	0	ENF70_Q_PSCDSL	"4" Postscan (demand select)
96	(60)	X'5'	0	ENF70_Q_FETCH	"5" Volume fetch
96	(60)	X'6'	0	ENF70_Q_VOLWT	"6" Start Setup
96	(60)	X'7'	0	ENF70_Q_SYSSSEL	"7" MDS system select processing
96	(60)	X'8'	0	ENF70_Q_ALLOC	"8" resource allocation
96	(60)	X'9'	0	ENF70_Q_VOLUAV	"9" unavailable VOL(s)
96	(60)	X'A'	0	ENF70_Q_VERIFY	"10" volume mounts
96	(60)	X'B'	0	ENF70_Q_SYSSVER	"11" MDS system verify processing
96	(60)	X'C'	0	ENF70_Q_ERROR	"12" Demand Select

Table 83. Structure ENF70 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
96	(60)	X'D'	0	ENF70_Q_SELECT	"13" Execution
96	(60)	X'E'	0	ENF70_Q_ONMAIN	"14" Execution
96	(60)	X'11'	0	ENF70_Q_BRKDWN	"17" Breakdown
96	(60)	X'12'	0	ENF70_Q_RESTRT	"18" MDS restart proc
96	(60)	X'13'	0	ENF70_Q_DONE	"19" Main and MDS proc. complete
96	(60)	X'14'	0	ENF70_Q_OUTPUT	"20" Output service
96	(60)	X'15'	0	ENF70_Q_OUTQUE	"21" Output service WTR
96	(60)	X'16'	0	ENF70_Q_OSWAIT	"22" Awaiting rsvd services
96	(60)	X'17'	0	ENF70_Q_CMPLT	"23" Output service complete
96	(60)	X'18'	0	ENF70_Q_DEMSEL	"24" Demand Select
96	(60)	X'19'	0	ENF70_Q_EFWAIT	"25" Ending function rq waiting or i/o completion
96	(60)	X'1A'	0	ENF70_Q_EFBAD	"26" Ending function rq not Processed
96	(60)	X'80'	0	ENF70_Q_INPUT	"128" Input queue (pre-execution)
96	(60)	X'86'	0	ENF70_Q_PURGE	"134" Purge queue
96	(60)	X'88'	0	ENF70_Q_RECEIVER	"136" Input queue (post-execution)
96	(60)	X'89'	0	ENF70_Q_XMIT	"137" NJE transmission queue
JES2 Phases - phases common to both JES2 and JES3 are listed above and commented below. Q_INPUT EQU 128 Input queue (pre-execution) Q_RECEIVER EQU 136 Input queue (post-execution) Q_CONVERT EQU 2 Conversion queue Q_VOLWT EQU 6 Setup queue Q_ONMAIN EQU 14 Execution queue					
96	(60)	X'84'	0	ENF70_Q_SPIN	"132" Spin queue
Q_BRKDWN EQU 17 Output queue Q_OUTPUT EQU 20 Hardcopy queue Q_PURGE EQU 134 Purge queue Q_XMIT EQU 137 NJE transmission queue					
97	(61)	BITSTRING	5		Reserved
102	(66)	CHARACTER	16	ENF70_JESDATA	JES-specific data for job
118	(76)	BITSTRING	2		Reserved
118	(76)	X'78'	0	ENF70_SIZE1	"*-ENF70" ENF70 for version one ends here
120	(78)	CHARACTER	64	ENF70_JOB_CORR	Job correlator
120	(78)	X'B8'	0	ENF70_SIZE2	"*-ENF70" ENF70 for Job correlator ends here
184	(B8)	DBL WORD	8	(0)	Establish alignment
184	(B8)	X'B8'	0	ENF70_FIXED_SIZE	"*-ENF70" Size of ENF70 fixed section

Table 84. Structure ENF70\_VEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ENF70_VEXT	ENF70 variable data extension
0	(0)	CHARACTER	6	ENF70_VEXT_EYE	Eyecatcher
6	(6)	SIGNED	2	ENF70_VEXT_LENGTH	Length of variable extension
8	(8)	DBL WORD	8	ENF70_REQDATA(0)	Beginning of variable data
8	(8)	X'8'	0	ENF70_VEXT_SIZE0	"*-ENF70_VEXT"

Table 84. Structure ENF70\_VEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
REQUEST=Q_SELECT or Q_DESELECT					
8	(8)	CHARACTER	10	ENF70_DEVICE	Device name
18	(12)	BITSTRING	1	ENF70_DEVICE_TYPE	Device class
18	(12)	X'1'	0	ENF70_DTYPE_DEV	"1" Standard device
18	(12)	X'2'	0	ENF70_DTYPE_JINIT	"2" JES Initiator
18	(12)	X'3'	0	ENF70_DTYPE_WINIT	"3" WLM Initiator
18	(12)	X'4'	0	ENF70_DTYPE_PHASE	"4" Select for current phase
19	(13)	BITSTRING	1	ENF70_DESEL_FLG1	Indicator flags
		1... ....		ENF70_DESEL_REQUE	"B'10000000'" Job to be requested for execution
		.1... ....		ENF70_DESEL_EJSTEP	"B'01000000'" Requested due to restart step
20	(14)	BITSTRING	4	ENF70_DEV_DATA	JES-specific device data
24	(18)	DBL WORD	8	(0)	
24	(18)	X'18'	0	ENF70_VEXT_SIZE1	"*-ENF70_VEXT"
REQUEST=Q_CHANGE					
8	(8)	BITSTRING	1	ENF70_OLD_QUEUE	Phase job moved from
9	(9)	CHARACTER	8	ENF70_OLD_JCLASS	Previous job class
17	(11)	CHARACTER	8	ENF70_OLD_SCLASS	Previous service class
32	(20)	DBL WORD	8	(0)	
32	(20)	X'20'	0	ENF70_VEXT_SIZE2	"*-ENF70_VEXT"
32	(20)	DBL WORD	8	(0)	
32	(20)	X'20'	0	ENF70_VEXT_MAXSIZE	"*-ENF70_VEXT" Largest size for ENF 70 variable extension

Table 85. Cross Reference for IAZENF70

Name	Offset	Hex Tag
ENF70	0	
ENF70_CAB	5C	80
ENF70_CABN	5C	5
ENF70_CCAB	5C	6
ENF70_CCAN	5C	4
ENF70_CCC	5C	40
ENF70_CCNV	5C	9
ENF70_CECC	5C	2
ENF70_CEO0M	5C	8
ENF70_CFLU	5C	B
ENF70_CHANGE	E	3
ENF70_CJCL	5C	3
ENF70_CNRM	5C	1
ENF70_CODE	5D	
ENF70_COMP	5C	

Table 85. Cross Reference for IAZENF70 (continued)

Name	Offset	Hex Tag
ENF70_CREQ	5C	20
ENF70_CSEC	5C	7
ENF70_CSYS	5C	A
ENF70_CUNK	5C	0
ENF70_CVER	6	2
ENF70_DESEL_EJSTEP	13	40
ENF70_DESEL_FLG1	13	
ENF70_DESEL_REQUE	13	80
ENF70_DESELECT	E	2
ENF70_DEV_DATA	14	
ENF70_DEVICE	8	
ENF70_DEVICE_TYPE	12	
ENF70_DTYPE_DEV	12	1
ENF70_DTYPE_JINIT	12	2
ENF70_DTYPE_PHASE	12	4
ENF70_DTYPE_WINIT	12	3
ENF70_FIXED_LENGTH	C	
ENF70_FIXED_SIZE	B8	B8
ENF70_ID	0	
ENF70_JES_NAME	12	
ENF70_JESDATA	66	
ENF70_JESPLEX_ID	1A	
ENF70_JOB_CORR	78	
ENF70_JOBCLASS	42	
ENF70_JOBID	2A	
ENF70_JOBNAME	22	
ENF70_LENGTH	8	
ENF70_MAXCC	5C	
ENF70_OLD_JCLASS	9	
ENF70_OLD_QUEUE	8	
ENF70_OLD_SCLASS	11	
ENF70_ORG_JOBID	32	
ENF70_ORG_NODE	3A	
ENF70_PURGE	E	4
ENF70_Q_ALLOC	60	8
ENF70_Q_BRKDOWN	60	11
ENF70_Q_CMPLT	60	17
ENF70_Q_CONVERT	60	2
ENF70_Q_DEMSEL	60	18

Table 85. Cross Reference for IAZENF70 (continued)

Name	Offset	Hex Tag
ENF70_Q_DONE	60	13
ENF70_Q_EFBAD	60	1A
ENF70_Q_EFWAIT	60	19
ENF70_Q_ERROR	60	C
ENF70_Q_FETCH	60	5
ENF70_Q_INPUT	60	80
ENF70_Q_NONE	60	0
ENF70_Q_ONMAIN	60	E
ENF70_Q_OSWAIT	60	16
ENF70_Q_OUTPUT	60	14
ENF70_Q_OUTQUE	60	15
ENF70_Q_PSCBAT	60	3
ENF70_Q_PSCDSL	60	4
ENF70_Q_PURGE	60	86
ENF70_Q_RECEIVER	60	88
ENF70_Q_RESTRT	60	12
ENF70_Q_SELECT	60	D
ENF70_Q_SPIN	60	84
ENF70_Q_SYSSSEL	60	7
ENF70_Q_SYSVER	60	B
ENF70_Q_VERIFY	60	A
ENF70_Q_VOLUAV	60	9
ENF70_Q_VOLWT	60	6
ENF70_Q_XMIT	60	89
ENF70_QUALIFIER	E	
ENF70_QUEUE	60	
ENF70_Q1_DEVICE	E	80
ENF70_RDR_DATE	54	
ENF70_RDR_TIME	58	
ENF70_REQDATA	8	
ENF70_SELECT	E	1
ENF70_SIZE1	76	78
ENF70_SIZE2	78	B8
ENF70_SRVCLASS	4A	
ENF70_VERSION	6	
ENF70_VEXT	0	
ENF70_VEXT_EYE	0	C5D5C6F7
ENF70_VEXT_LENGTH	6	
ENF70_VEXT_MAXSIZE	20	20



Table 85. Cross Reference for IAZENF70 (continued)

Name	Offset	Hex Tag
ENF70_VEXT_SIZE0	8	8
ENF70_VEXT_SIZE1	18	18
ENF70_VEXT_SIZE2	20	20
ENF70_VONE	6	1
ENF70_VTWO	6	2

## IAZENF78 information

### IAZENF78 programming interface information

IAZENF78 is a programming interface.

### IAZENF78 heading information

<b>Common name:</b>	ENF78 Parameter List
<b>Macro ID:</b>	IAZENF78
<b>DSECT name:</b>	ENF78
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	ENF78 Offset: ENF78_ID-ENF78 Length: L'ENF78_ID
<b>Storage attributes:</b>	Subpool: 241 Key: Key 1 Residency: Any
<b>Size:</b>	Variable depending on the type of ENF78 being issued. See ENF78_LENGTH for the run-time length.
<b>Created by:</b>	The Job Entry Subsystem issuing the ENF 78 signal
<b>Pointed to by:</b>	The ENFREQ parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the ENF 78 parameter list received by ENF listen exits.

### IAZENF78 mapping

Table 86. Structure ENF78

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF78	ENF78 mapping
0	(0)	CHARACTER	6	ENF78_ID	Eye catcher 'ENF78 '
6	(6)	BITSTRING	1	ENF78_VERSION	Version of mapping
6	(6)	X'1'	0	ENF78_VONE	"1" Version 1
6	(6)	X'1'	0	ENF78_CVER	"ENF78_VONE" Current version
7	(7)	BITSTRING	1		Reserved

Table 86. Structure ENF78 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	SIGNED	4	ENF78_LENGTH	Total length of ENF78 data
12	(C)	SIGNED	2	ENF78_FIXED_LENGTH	Length of fixed section
14	(E)	BITSTRING	1	ENF78_QUALIFIER	Qualifier code - defined below
14	(E)	X'1'	0	ENF78_JOB_NOTIFY	"1" Job was processed
15	(F)	BITSTRING	1	ENF78_OPTIONS	ENF Options - defined below
		1... ....		ENF78_OPT_JOB_NOTIFY_EXISTS	"B'10000000" Job Notification data exists
		.1.. ....		ENF78_OPT_JES_HANDLED	"B'01000000" Handled by JES
16	(10)	CHARACTER	8	ENF78_JES_NAME	JES2 Member Name / JES3 MAIN name where this signal originated
24	(18)	BITSTRING	8	ENF78_JESPLEX_ID	Unique JESPLEX identifier
32	(20)	CHARACTER	8	ENF78_JOBNAME	Job name
40	(28)	CHARACTER	8	ENF78_JOBID	Job ID
48	(30)	CHARACTER	8	ENF78_ORG_JOBID	Original Job ID
56	(38)	CHARACTER	8	ENF78_ORG_NODE	Origin Node
64	(40)	CHARACTER	8	ENF78_SUB_MVS	Submitting MVS system name
72	(48)	CHARACTER	8	ENF78_JOBCLASS	Job Class
80	(50)	CHARACTER	8	ENF78_SRVCLASS	Service class
88	(58)	CHARACTER	8	ENF78_OWNERID	Job owner ID
96	(60)	SIGNED	4	ENF78_RDR_DATE	Reader on date
100	(64)	SIGNED	4	ENF78_RDR_TIME	Reader on time
104	(68)	BITSTRING	4	ENF78_MAXCC(0)	Job completion code
104	(68)	BITSTRING	1	ENF78_COMP	Job completion indicator
		1... ....		ENF78_CAB	"X'80'" ABEND CODE
		.1.. ....		ENF78_CCC	"X'40'" Completion code
		..1. ....		ENF78_CREQ	"X'20'" JOBR completion code set
104	(68)	X'0'	0	ENF78_CUNK	"0" No completion info
104	(68)	X'1'	0	ENF78_CNRM	"1" Job ended normally
104	(68)	X'2'	0	ENF78_CECC	"2" Job ended by cc
104	(68)	X'3'	0	ENF78_CJCL	"3" Job had a JCL error
104	(68)	X'4'	0	ENF78_CCAN	"4" Job was canceled
104	(68)	X'5'	0	ENF78_CABN	"5" Job ABENDED
104	(68)	X'6'	0	ENF78_CCAB	"6" Converter ABENDED
104	(68)	X'7'	0	ENF78_CSEC	"7" Security error
104	(68)	X'8'	0	ENF78_CEO0	"8" Job ABENDED in end of memory processing
104	(68)	X'9'	0	ENF78_CCNV	"9" Converter error
104	(68)	X'A'	0	ENF78_CSYS	"10" System failure
104	(68)	X'B'	0	ENF78_CFLU	"11" Job has been flushed
105	(69)	BITSTRING	3	ENF78_CODE	Completion code (if applicable), or ABEND codes (system code in first 12 bits, user code in last 12 bits).
108	(6C)	BITSTRING	1	ENF78_QUEUE	Current phase job is queued for
JES3 Phases					
108	(6C)	X'0'	0	ENF78_Q_NONE	"0" No previous queue (job create)
108	(6C)	X'2'	0	ENF78_Q_CONVERT	"2" Conversion

Table 86. Structure ENF78 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
108	(6C)	X'3'	0	ENF78_Q_PSCBAT	"3" Postscan (batch)
108	(6C)	X'4'	0	ENF78_Q_PSCDSL	"4" Postscan (demand select)
108	(6C)	X'5'	0	ENF78_Q_FETCH	"5" Volume fetch
108	(6C)	X'6'	0	ENF78_Q_VOLWT	"6" Start Setup
108	(6C)	X'7'	0	ENF78_Q_SYSSSEL	"7" MDS system select processing
108	(6C)	X'8'	0	ENF78_Q_ALLOC	"8" resource allocation
108	(6C)	X'9'	0	ENF78_Q_VOLUAV	"9" unavailable VOL(s)
108	(6C)	X'A'	0	ENF78_Q_VERIFY	"10" volume mounts
108	(6C)	X'B'	0	ENF78_Q_SYSVER	"11" MDS system verify processing
108	(6C)	X'C'	0	ENF78_Q_ERRORR	"12" Demand Select
108	(6C)	X'D'	0	ENF78_Q_SELECT	"13" Execution
108	(6C)	X'E'	0	ENF78_Q_ONMAIN	"14" Execution
108	(6C)	X'11'	0	ENF78_Q_BRKDWN	"17" Breakdown
108	(6C)	X'12'	0	ENF78_Q_RESTRT	"18" MDS restart proc
108	(6C)	X'13'	0	ENF78_Q_DONE	"19" Main and MDS proc. complete
108	(6C)	X'14'	0	ENF78_Q_OUTPUT	"20" Output service
108	(6C)	X'15'	0	ENF78_Q_OUTQUE	"21" Output service WTR
108	(6C)	X'16'	0	ENF78_Q_OSWAIT	"22" Awaiting rsvd services
108	(6C)	X'17'	0	ENF78_Q_CMPLT	"23" Output service complete
108	(6C)	X'18'	0	ENF78_Q_DEMSEL	"24" Demand Select
108	(6C)	X'19'	0	ENF78_Q_EFWAIT	"25" Ending function rq waiting or i/o completion
108	(6C)	X'1A'	0	ENF78_Q_EFBAD	"26" Ending function rq not Processed
JES2 Phases - phases common to both JES2 and JES3 are listed above and commented below.					
108	(6C)	X'80'	0	ENF78_Q_INPUT	"128" Input queue (pre-execution)
108	(6C)	X'88'	0	ENF78_Q_RECEIVER	"136" Input queue (post-execution)
Q_CONVERT EQU 2 Conversion queue Q_VOLWT EQU 6 Setup queue Q_ONMAIN EQU 14 Execution queue					
108	(6C)	X'84'	0	ENF78_Q_SPIN	"132" Spin queue
Q_BRKDWN EQU 17 Output queue Q_OUTPUT EQU 20 Hardcopy queue					
108	(6C)	X'86'	0	ENF78_Q_PURGE	"134" Purge queue
108	(6C)	X'89'	0	ENF78_Q_XMIT	"137" NJE transmission queue
109	(6D)	BITSTRING	3		Reserved
112	(70)	CHARACTER	16	ENF78_JESDATA	JES-specific data for job
128	(80)	CHARACTER	64	ENF78_JOB_CORR	Job correlator
192	(C0)	DBL WORD	8	(0)	Establish alignment
192	(C0)	X'C0'	0	ENF78_FIXED_SIZE	"*-ENF78" Size of ENF78 fixed section

Table 87. Structure ENF78\_VEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ENF78_VEXT	ENF78 variable data extension

Table 87. Structure ENF78\_VEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	6	ENF78_VEXT_EYE	Eyecatcher
6	(6)	SIGNED	2	ENF78_VEXT_LENGTH	Length of variable extension
8	(8)	DBL WORD	8	ENF78_REQDATA(0)	Beginning of variable data
8	(8)	X'8'	0	ENF78_VEXT_SIZE0	"*-ENF78_VEXT"
ENF78_OPTIONS = ENF78_OPT_JOB_NOTIFY_EXIST					
8	(8)	BITSTRING	4096	ENF78_JOB_NOTIFY_DATA	Job Notification data
4104	(1008)	DBL WORD	8	(0)	
4104	(1008)	X'1008'	0	ENF78_VEXT_SIZE1	"*-ENF78_VEXT"
4104	(1008)	DBL WORD	8	(0)	
4104	(1008)	X'1008'	0	ENF78_VEXT_MAXSIZE	"*-ENF78_VEXT" Largest size for ENF78 variable extension

Table 88. Cross Reference for IAZENF78

Name	Offset	Hex Tag
ENF78	0	
ENF78_CAB	68	80
ENF78_CABN	68	5
ENF78_CCAB	68	6
ENF78_CCAN	68	4
ENF78_CCC	68	40
ENF78_CCNV	68	9
ENF78_CECC	68	2
ENF78_CEOM	68	8
ENF78_CFLU	68	B
ENF78_CJCL	68	3
ENF78_CNRM	68	1
ENF78_CODE	69	
ENF78_COMP	68	
ENF78_CREQ	68	20
ENF78_CSEC	68	7
ENF78_CSYS	68	A
ENF78_CUNK	68	0
ENF78_CVER	6	1
ENF78_FIXED_LENGTH	C	
ENF78_FIXED_SIZE	C0	C0
ENF78_ID	0	
ENF78_JES_NAME	10	
ENF78_JESDATA	70	
ENF78_JESPLEX_ID	18	
ENF78_JOB_CORR	80	

Table 88. Cross Reference for IAZENF78 (continued)

Name	Offset	Hex Tag
ENF78_JOB_NOTIFY	E	1
ENF78_JOB_NOTIFY_DATA	8	
ENF78_JOBCLASS	48	
ENF78_JOBID	28	
ENF78_JOBNAME	20	
ENF78_LENGTH	8	
ENF78_MAXCC	68	
ENF78_OPT_JES_HANDLED	F	40
ENF78_OPT_JOB_NOTIFY_EXIST	F	80
ENF78_OPTIONS	F	
ENF78_ORG_JOBID	30	
ENF78_ORG_NODE	38	
ENF78_OWNERID	58	
ENF78_Q_ALLOC	6C	8
ENF78_Q_BRKDOWN	6C	11
ENF78_Q_CMPLT	6C	17
ENF78_Q_CONVERT	6C	2
ENF78_Q_DEMSEL	6C	18
ENF78_Q_DONE	6C	13
ENF78_Q_EFBAD	6C	1A
ENF78_Q_EFWAIT	6C	19
ENF78_Q_ERROR	6C	C
ENF78_Q_FETCH	6C	5
ENF78_Q_INPUT	6C	80
ENF78_Q_NONE	6C	0
ENF78_Q_ONMAIN	6C	E
ENF78_Q_OSWAIT	6C	16
ENF78_Q_OUTPUT	6C	14
ENF78_Q_OUTQUE	6C	15
ENF78_Q_PSCBAT	6C	3
ENF78_Q_PSCDSL	6C	4
ENF78_Q_PURGE	6C	86
ENF78_Q_RECEIVER	6C	88
ENF78_Q_RESTRT	6C	12
ENF78_Q_SELECT	6C	D
ENF78_Q_SPIN	6C	84
ENF78_Q_SYSEL	6C	7
ENF78_Q_SYSVER	6C	B
ENF78_Q_VERIFY	6C	A

Table 88. Cross Reference for IAZENF78 (continued)

Name	Offset	Hex Tag
ENF78_Q_VOLUAV	6C	9
ENF78_Q_VOLWT	6C	6
ENF78_Q_XMIT	6C	89
ENF78_QUALIFIER	E	
ENF78_QUEUE	6C	
ENF78_RDR_DATE	60	
ENF78_RDR_TIME	64	
ENF78_REQDATA	8	
ENF78_SRVCLASS	50	
ENF78_SUB_MVS	40	
ENF78_VERSION	6	
ENF78_VEXT	0	
ENF78_VEXT_EYE	0	C5D5C6F7
ENF78_VEXT_LENGTH	6	
ENF78_VEXT_MAXSIZE	1008	1008
ENF78_VEXT_SIZE0	8	8
ENF78_VEXT_SIZE1	1008	1008
ENF78_VONE	6	1

## IAZJBCLD information

### IAZJBCLD programming interface information

IAZJBCLD is a programming interface.

### IAZJBCLD heading information

<b>Common name:</b>	JES2 Job Class Data Parameter List
<b>Macro ID:</b>	IAZJBCLD
<b>DSECT name:</b>	JBCLD
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	JBCL Offset: JBCLSSID Length: L'JBCLSSID
<b>Storage attributes:</b>	Subpool: caller Key: 1, caller must be in key 1 Residency: Virtual = any real = any
<b>Size:</b>	See JBCLSIZE
<b>Created by:</b>	caller of SSI function 'SSOBSSJI' = 71
<b>Pointed to by:</b>	SSJIUSER in the SSOB extension

**Serialization:** None

**Function:** This macro provides the mapping of the parameter list used by authorized programs to request Job Class Data from the JES2 subsystem.

## IAZJBCLD mapping

Table 89. Structure JBCLD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCLD	
0	(0)	CHARACTER	4	JBCLSSID	I.Eye catcher
4	(4)	ADDRESS	2	JBCLLEN	I.Length of JBCLD parameter list
6	(6)	SIGNED	2	JBCLSVRN	I.Parm list version number
6	(6)	X'1'	0	JBCLSVR1	"1" Service version number of IAZJBCLD - original
6	(6)	X'2'	0	JBCLSVR2	"2" Service version number of IAZJBCLD - OW38962
6	(6)	X'3'	0	JBCLSVR3	"3" Service version number of IAZJBCLD - z/OS 1.2
6	(6)	X'4'	0	JBCLSVR4	"4" Service version number of IAZJBCLD - z/OS 1.8
6	(6)	X'4'	0	JBCLSVR#	"4" Service version number of IAZJBCLD - Latest Version JBCLSVRN MUST BE SET TO JBCLSVR#
8	(8)	SIGNED	2	JBCLVERO	O.Subsystem version number
10	(A)	SIGNED	2		Reserved
10	(A)	X'C'	0	JBCLUSER	"*"
JBCLSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.					
12	(C)	ADDRESS	4	JBCLSTRP	Storage management anchor
16	(10)	BITSTRING	1	JBCLFLAG	IS.Flag byte
		1... ....		JBCL1JOB	"B'10000000" Return a particular job class indicated by JBCLJNAM
17	(11)	BITSTRING	1		Reserved for future use
18	(12)	CHARACTER	1	JBCLSMCL	O.STC message class
19	(13)	CHARACTER	1	JBCLTMCL	O.TSU message class
20	(14)	CHARACTER	8	JBCLJNAM	IS.Single job class to be returned
28	(1C)	SIGNED	4	(20)	Reserved for future use
108	(6C)	SIGNED	4	JBCLDPTR	O.Pointer to first job class data buffer
112	(70)	SIGNED	4	JBCLNJC	O.Number of job classes returned
116	(74)	SIGNED	4	(15)	Reserved for future use
116	(74)	X'B0'	0	JBCLSIZE1	"*-JBCLD" Fixed parmameter end: version 1
116	(74)	X'B0'	0	JBCLSIZE	"*-JBCLD" JBCLD Current version fixed parameter length

Table 90. Structure JBCLSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCLSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JBCLSTID	Full eyecatcher
8	(8)	ADDRESS	2	JBCLSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JBCLSTSP	Subpool of area
12	(C)	X'E6'	0	JBCLSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JBCLSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JBCLSTNX	Pointer to next area
20	(14)	ADDRESS	4	JBCLSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JBCLSTBG(0)	Start of data area

Table 91. Structure JBCLDHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCLDHDR	, Job class section header
0	(0)	CHARACTER	4	JBCTEYE	Eye catcher
4	(4)	ADDRESS	2	JBCTOHDR	Offset to first section
6	(6)	BITSTRING	2		Reserved for future use
8	(8)	ADDRESS	4	JBCTNEXT	Address of next CAT
12	(C)	ADDRESS	4		Reserved for future use
16	(10)	ADDRESS	4		Reserved for future use
16	(10)	X'14'	0	JBCLDHSZ	"*-JBCLDHDR" Size of header
Section identifiers					
	.... ....			JBCLTCAT	"X'00'" Main JOBCCLASS info section
	.... ...1			JBCLTMEM	"X'01'" Member/system info section

Table 92. Structure JBCTPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCTPREF	, Prefix section
0	(0)	ADDRESS	2	JBCTHDLN	Length of entire jobclass entry (Max value is 65535)
2	(2)	ADDRESS	1	JBCTHDTTP	Type of this header
3	(3)	ADDRESS	1	JBCTHDMMD	Modifier
3	(3)	X'4'	0	JBCTHDSZ	"*-JBCTPREF" Size of prefix section

Table 93. Structure JBCLDCAT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCLDCAT	, Job Class Data
0	(0)	ADDRESS	2	JBCTLEN	Length of Job Class section
2	(2)	ADDRESS	1	JBCTTYPE	Type of this header
3	(3)	ADDRESS	1	JBCTMOD	Modifier
4	(4)	BITSTRING	1	JBCJOBFL	Job flags
	1... ....			JBCBATCH	"B'10000000'" Batch job



Table 93. Structure JBCLDCAT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		JBCTSUJB	"B'01000000'" Time sharing user
		..1. ....		JBCSTCJB	"B'00100000'" System task
4	(4)	X'E0'	0	JBCVALJB	"JBCBATCH+JBCTSUJB+JBCSTCJB" valid types
		...1 ....		JBCNOJNL	"B'00010000'" No journal option
		.... 1...		JBCNOUPT	"B'00001000'" No output option
		.... .1..		JBCTSCAN	"B'00000100'" TYPRUN=SCAN was specified
		.... ..1.		JBCTCOPY	"B'00000010'" TYPRUN=COPY was specified
		.... ...1		JBCRSTRT	"B'00000001'" Allow warmstart to re-queue to XEQ
5	(5)	BITSTRING	1	JBCJB0PT	Job options flag
EQU B'11000110' Reserved					
		..1. ....		JBCTHOLD	"B'00100000'" TYPRUN=HOLD
		...1 ....		JBCNOLOG	"B'00010000'" NO job log option
		.... 1...		JBCXBMI	"B'00001000'" XBM II job
		.... ...1		JBCQHELD	"B'00000001'" Class queue is held
6	(6)	CHARACTER	2	JBCPROCN	Procedure library number
8	(8)	BITSTRING	1	JBCSMFLG	SMF flag
EQU B'11011000' Reserved					
		..1. ....		JBCNOUSO	"B'00100000'" Do not take IEFUSO exit
		.... .1..		JBCNOTY6	"B'00000100'" Do not produce Type 6 SMF record
		.... ..1.		JBCNOUJP	"B'00000010'" Do not take IEFUJP exit
		.... ...1		JBCNOT26	"B'00000001'" Do not produce Type 26 SMF record
9	(9)	CHARACTER	3	JBCPERFM	Default performance group
12	(C)	SIGNED	4	JBCCPBGN(0)	
12	(C)	BITSTRING	1	JBCCACCT	Accounting info required
		.... ....		JBCCNONE	"B'00000000'" No info is required
		.... ...1		JBCCNAME	"B'00000001'" Programmer required
		.... ..1.		JBCCNUMB	"B'00000010'" Account number required
12	(C)	X'3'	0	JBCCALL	"JBCCNAME+JBCCNUMB" Pgmnr and number required
		.... .1..		JBCCSWAL	"B'00000100'" SWA above 16M line
13	(D)	CHARACTER	2		Reserved
15	(F)	CHARACTER	8	JBCCTIME(0)	DFLT job step intl time
15	(F)	CHARACTER	6	JBCCMNTE	Maximum minutes
21	(15)	CHARACTER	2	JBCCSECS	Maximum seconds
23	(17)	CHARACTER	5	JBCCREGN(0)	Default job step region
23	(17)	CHARACTER	4	JBCCRGN	Numeric specification
27	(1B)	CHARACTER	1	JBCCRGA	Kilbytes or megabytes spec.
28	(1C)	CHARACTER	1	JBCCMND	Command disposition
28	(1C)	X'F0'	0	JBCCEXEC	"C'0'" Pass the command through
28	(1C)	X'F1'	0	JBCCDSPL	"C'1'" Display and then pass cmdnd

Table 93. Structure JBCLDCAT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
28	(1C)	X'F2'	0	JBCCVER	"C'2'" Ask operator disposition
28	(1C)	X'F3'	0	JBCCIGN	"C'3'" Ignore the command
29	(1D)	CHARACTER	1	JBCCBLP	Bypass label processing option
		.... ...1		JBCCBLPY	"B'00000001'" Process bypass label parm
30	(1E)	CHARACTER	1	JBCCOCG	Operator command group
		.... .1..		JBCCGSYS	"B'00000100'" Group 1 commands (SYS)
		.... ..1.		JBCCGIO	"B'00000010'" Group 2 commands (I/O)
		.... ...1		JBCCGCON	"B'00000001'" Group 3 commands (CONS)
30	(1E)	X'7'	0	JBCCGALL	"JBCCGSYS+JBCCGIO+JBCCGCON" All groups
31	(1F)	CHARACTER	3		Reserved command group
34	(22)	CHARACTER	1	JBCCLJCL	Default MSGLEVEL, JCL listed if not MSGLEVEL
35	(23)	CHARACTER	1	JBCCTMSG	Allocation termination msgs
35	(23)	X'C'	0	JBCCONVP	"JBCCPBGN,*-JBCCPBGN" Full converter parameters
36	(24)	BITSTRING	8		Reserved for potential expansion of IEF CNPRM
44	(2C)	BITSTRING	1	JBCOPSWT	Converter option switches
45	(2D)	BITSTRING	1	JBCFLAG1	Normal OUTDISP for JESDS
		1... ....		JBC1CDP	"B'10000000'" Conditionally purge output for jobs in this class
		...1 ....		JBC1NODP	"B'00010000'" NORMAL OUTDISP=PURGE
		.... 1...		JBC1NODW	"B'00001000'" NORMAL OUTDISP=WRITE
		.... .1..		JBC1NODH	"B'00000100'" NORMAL OUTDISP=HOLD
		.... ..1.		JBC1NODK	"B'00000010'" NORMAL OUTDISP=KEEP
		.... ...1		JBC1NODL	"B'00000001'" NORMAL OUTDISP=LEAVE
46	(2E)	BITSTRING	1	JBCFLAG2	Abnormal OUTDISP for JESDS
		...1 ....		JBC2AODP	"B'00010000'" ABNORMAL OUTDISP=PURGE
		.... 1...		JBC2AODW	"B'00001000'" ABNORMAL OUTDISP=WRITE
		.... .1..		JBC2AODH	"B'00000100'" ABNORMAL OUTDISP=HOLD
		.... ..1.		JBC2AODK	"B'00000010'" ABNORMAL OUTDISP=KEEP
		.... ...1		JBC2AODL	"B'00000001'" ABNORMAL OUTDISP=LEAVE
47	(2F)	BITSTRING	1	JBCFLAG3	Processing flags
		1... ....		JBC3WLM	"B'10000000'" WLM managed class
		.1.. ....		JBC3SPEC	"B'01000000'" Special class (STC/TSU)
		..1. ....		JBC3PSEU	"B'00100000'" Pseudo-class (Only class name and counts valid)
		.... .1..		JBC3SINV	"B'00000100'" Default SCHENV (CATSCHED) no longer defined
		.... ..1.		JBC3DUOK	"B'00000010'" Duplicate job names OK this job class
48	(30)	CHARACTER	8	JBCXBM	PROCNAME FOR XBM/2 JOB
56	(38)	CHARACTER	8	JBCCLASS	Job class
64	(40)	SIGNED	4	JBCMAXJ	Max executing jobs in this class in the JESplex
68	(44)	SIGNED	4	JBCCURJ	Current executing jobs in this class in the JESplex

Table 93. Structure JBCLDCAT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
72	(48)	SIGNED	4	JBCQSIZE	Jobs eligible for execution (including executing jobs)
76	(4C)	SIGNED	4	JBCHLDCT	Jobs held in class (not including executing jobs)
76	(4C)	X'50'	0	JBCTSI1Z1	"*-JBCLDCAT" Version 1 job class length
80	(50)	CHARACTER	16	JBCDSCH	Default SCHENV, JOB classes only
96	(60)	CHARACTER	1	JBCDMCLS	Default msgclass, TSU and STC classes only
96	(60)	X'61'	0	JBCTSI1Z2	"*-JBCLDCAT" Version 2 job class length
97	(61)	BITSTRING	6	JBCJLOG	JESLOG control information
97	(61)	BITSTRING	1	JBCJLFLG	Flags
		1... ....		JBJLELIG	"B'10000000" Spin eligible
		.1... ....		JBJLTIME	"B'01000000" Spin on time interval
		..1. ....		JBJLTIMD	"B'00100000" Spin on time of day
		...1 ....		JBJLLINE	"B'00010000" Spin upon line delta
		.... 1...		JBJLSUP	"B'00001000" Suppress
		.... .1..		JBJLNOSP	"B'00000100" No Spin
98	(62)	SIGNED	1	JBJSOURC	Source of JESLOG info
98	(62)	X'0'	0	JBJSXIT	"0" JESLOG from Exit
98	(62)	X'1'	0	JBJSJCL	"1" JESLOG from JCL
98	(62)	X'2'	0	JBJS CAT	"2" JESLOG from CAT
98	(62)	X'3'	0	JBJSRR	"3" JESLOG from IEFSSRR
99	(63)	SIGNED	4	JBCJLVAL	Spin value
103	(67)	BITSTRING	9	JBCDRESV	Reserved
112	(70)	DBL WORD	8	(0)	
112	(70)	X'70'	0	JBCTSI1Z3	"*-JBCLDCAT" Version 3 job class length
112	(70)	X'70'	0	JBCTSI1Z4	"*-JBCLDCAT" Version 4 job class length
112	(70)	X'70'	0	JBCTSIZE	"*-JBCLDCAT" Job Class data length

Table 94. Structure JBCLMEMD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JBCLMEMD	, Job Class Member data
0	(0)	ADDRESS	2	JBCMLEN	Length of Job Class section
2	(2)	ADDRESS	1	JBCMTYPE	Type of this header
3	(3)	ADDRESS	1	JBCMMOD	Modifier
4	(4)	ADDRESS	2	JBCMFRST	1st member section off
6	(6)	ADDRESS	2	JBCMMCNT	Count of member entries
8	(8)	ADDRESS	2	JBCMMLN	Length of a member entry
10	(A)	ADDRESS	2		Reserved
12	(C)	SIGNED	4	JBCM1ST(0)	
12	(C)	X'C'	0	JBCMSIZE	"*-JBCLMEMD" Fixed section length

Table 95. Structure JBCLMEME

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JBCLMEME	, Job Class Member data
0	(0)	CHARACTER	4	JBCMNAME	JES2 member name
4	(4)	CHARACTER	8	JBCMSYS	MVS system name
12	(C)	BITSTRING	1	JBCMFLG1	Member flags
		1... ....		JBCM1JBA	"B'10000000" Jobclass active on member
		.1.. ....		JBCM1ACT	"B'01000000" Member is active
		..1. ....		JBCM1PXQ	"B'00100000" \$PXEQ issued on member
		...1 ....		JBCM1PJS	"B'00010000" Member is draining (\$P)
13	(D)	BITSTRING	3		Reserved
16	(10)	SIGNED	4	JBCMJMAX	Maximum jobs active
20	(14)	SIGNED	4	JBCMJACT	Current jobs active
20	(14)	X'18'	0	JBCMESIZ	"*-JBCLMEME" Member entry length

Table 96. Cross Reference for IAZJBCLD

Name	Offset	Hex	Tag
JBCBATCH	4		80
JBCCACCT	C		
JBCCALL	C		3
JBCCBLP	1D		
JBCCBLPY	1D		1
JBCCDSPL	1C		F1
JBCCEXEC	1C		F0
JBCCGALL	1E		7
JBCCGCON	1E		1
JBCCGIO	1E		2
JBCCGSYS	1E		4
JBCCIGN	1C		F3
JBCCCLASS	38		
JBCCJCL	22		
JBCCMND	1C		
JBCCMNTE	F		
JBCCNAME	C		1
JBCCNONE	C		0
JBCCNUMB	C		2
JBCCOCG	1E		
JBCCONVP	23		C
JBCCPBG	C		
JBCCREGN	17		
JBCCRGA	1B		
JBCCRG	17		

Table 96. Cross Reference for IAZJBCLD (continued)

Name	Offset	Hex Tag
JBCCSECS	15	
JBCCSWAL	C	4
JBCCTIME	F	
JBCCTMSG	23	
JBCCURJ	44	
JBCCVER	1C	F2
JBCDMCLS	60	
JBCDRESV	67	
JBCDSCH	50	
JBCFLAG1	2D	
JBCFLAG2	2E	
JBCFLAG3	2F	
JBCHLDCT	4C	
JBCJB0PT	5	
JBCJLFLG	61	
JBCJLOG	61	
JBCJLVAL	63	
JBCJOBFL	4	
JBCLD	0	
JBCLDCAT	0	
JBCLDHDR	0	
JBCLDHSZ	10	14
JBCLDPTR	6C	
JBCLFLAG	10	
JBCLJNAM	14	
JBCLLEN	4	
JBCLMEMD	0	
JBCLMEME	0	
JBCLNJC	70	
JBCLSMCL	12	
JBCLSSID	0	
JBCLSTBG	18	
JBCLSTCP	14	
JBCLSTHL	8	
JBCLSTID	0	D1C2C3D3
JBCLSTNX	10	
JBCLSTOR	0	
JBCLSTPL	C	E6
JBCLSTRP	C	

Table 96. Cross Reference for IAZJBCLD (continued)

Name	Offset	Hex Tag
JBCLSTSP	C	
JBCLSTTL	D	
JBCLSVR#	6	4
JBCLSVRN	6	
JBCLSVR1	6	1
JBCLSVR2	6	2
JBCLSVR3	6	3
JBCLSVR4	6	4
JBCLSIZE	74	B0
JBCLSIZE1	74	B0
JBCLTCAT	10	0
JBCLTMCL	13	
JBCLTMEM	10	1
JBCLUSER	A	C
JBCLVERO	8	
JBCL1JOB	10	80
JBCMAXJ	40	
JBCMESIZ	14	18
JBCMFLG1	C	
JBCMFRST	4	
JBCMJACT	14	
JBCMJMAX	10	
JBCMLEN	0	0
JBCMMCNT	6	
JBCMMLN	8	
JBCMMOD	3	
JBCMNAME	0	
JBCMSIZE	C	C
JBCMSYS	4	
JBCMTYPE	2	
JBCM1ACT	C	40
JBCM1JBA	C	80
JBCM1PJS	C	10
JBCM1PXQ	C	20
JBCM1ST	C	
JBCNOJNL	4	10
JBCNOLOG	5	10
JBCNOTY6	8	4
JBCNOT26	8	1

Table 96. Cross Reference for IAZJBCLD (continued)

Name	Offset	Hex Tag
JBCNOUJP	8	2
JBCNOUPT	4	8
JBCNOUSO	8	20
JBCOPSWT	2C	
JBCPERFM	9	
JBCPROCN	6	
JBCQHELD	5	1
JBCQSIZE	48	
JBCRSTRT	4	1
JBCSMFLG	8	
JBCSTCJB	4	20
JBCTCOPY	4	2
JBCTEYE	0	C4C3C1E3
JBCTHDLN	0	
JBCTHDMO	3	
JBCTHDSZ	3	4
JBCTHDTP	2	
JBCTHOLD	5	20
JBCTLEN	0	70
JBCTMOD	3	
JBCTNEXT	8	
JBCTOHDR	4	14
JBCTPREF	0	
JBCTSCAN	4	4
JBCTSIZE	70	70
JBCTSI21	4C	50
JBCTSI22	60	61
JBCTSI23	70	70
JBCTSI24	70	70
JBCTSUJB	4	40
JBCTTYPE	2	
JBCVALJB	4	E0
JBCXBM	30	
JBCXBMI	5	8
JBC1CDP	2D	80
JBC1NODH	2D	4
JBC1NODK	2D	2
JBC1NODL	2D	1
JBC1NODP	2D	10

Table 96. Cross Reference for IAZJBCLD (continued)

Name	Offset	Hex Tag
JBC1NODW	2D	8
JBC2AODH	2E	4
JBC2AODK	2E	2
JBC2AODL	2E	1
JBC2AODP	2E	10
JBC2AODW	2E	8
JBC3DUOK	2F	2
JBC3PSEU	2F	20
JBC3SINV	2F	4
JBC3SPEC	2F	40
JBC3WLM	2F	80
JBJLELIG	61	80
JBJLLINE	61	10
JBJLNOSP	61	4
JBJLSUP	61	8
JBJLTIMD	61	20
JBJLTIMI	61	40
JBJSCAT	62	2
JBJSEXIT	62	0
JBJSJCL	62	1
JBJSOURC	62	
JBJSRR	62	3

## IAZJPCKP information

### IAZJPCKP programming interface information

The following fields are **NOT** programming interface information:

- JCIFSIZE
- JCIGENSZ
- JCIGFSTR
- JCIHDSZ
- JCIPSTBG
- JCIPSTCP
- JCIPSTHL
- JCIPSTID
- JCIPSTNX
- JCIPSTOR
- JCIPSTPL
- JCIPSTRP
- JCIPSTSP



- JCIPSTSZ
- JCIPSTTL

## IAZJPCCKP heading information

<b>Common name:</b>	CKPT information parameter list for SSI 82 (JES2 only)
<b>Macro ID:</b>	IAZJPCCKP
<b>DSECT name:</b>	JPCCKP
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	JESCKPTI Offset: JCIPID Length: L'JCIPID
<b>Storage attributes:</b>	Subpool: Parameter List = Subpool of Caller Output Data = Subpool 230 Key: Parameter List = Key of Caller Output Data = Key 1 Residency: Virtual = 31 bit private storage real = 64 bit storage
<b>Size:</b>	See JCIPSIZE
<b>Created by:</b>	Caller of SSI function 'SSOBSSJP' = 82
<b>Pointed to by:</b>	SSJPUUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by programs to request checkpoint data from the JES subsystem.

## IAZJPCCKP mapping

Table 97. Structure JPCCKP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPCCKP	
0	(0)	CHARACTER	8	JCIPID	I.Eye catcher
8	(8)	ADDRESS	2	JCIPLEN	I.Length of JPCCKP parameter
<p>There are two 2 byte versions for this SSOB extension. JCIPVER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JCIPVER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JCIPVER0 may be higher than JCIPVER. In this case, only the fields valid at the JCIPVER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JCIPVER(0)	I.SSOB version
10	(A)	ADDRESS	1	JCIPVERL	I.SSOB version level
11	(B)	ADDRESS	1	JCIPVERM	I.SSOB version modifier

Table 97. Structure JPCKP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
11	(B)	BITSTRING	0	JCIPV010	"X'0100'" Initial version number of IAZJPCKP.
11	(B)	BITSTRING	0	JCIPSVR#	"X'0100'" Latest version
11	(B)	X'1'	0	JCIPCVRL	"1" Current version level
11	(B)	X'0'	0	JCIPCVRM	"0" Current version modifier
12	(C)	SIGNED	2	JCIPVERO	O.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved.
<p>JCIPSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JCIPSTRP	Storage management anchor
<p>Begin input-only fields.</p> <p>The filters in JCIPFLTR are a list of CKPT info areas to include in the output area. The current checkpoint information is always returned. Additional value can be requested using JCIPFLTR. The filters flags have the following meanings:</p> <p>JCIPFINT - Values from the initialization data set are returned. Only data specified on the CKPTDEF statement are available (no size information etc).</p> <p>JCIPFRST - Values from when JES2 performed the initial read of checkpoint data. This includes the results of any forwarding or initialization reconfiguration.</p> <p>JCIPFHST - Historical values of the CKPT info specification. Only changes to the in use CKPT1 and CKPT2 specifications are saved (change that require CKPT reconfiguration).</p> <p>Note: First and historical information is only returned if they differ for the CKPT1/CKPT2 info for the current checkpoint data set.</p>					
20	(14)	BITSTRING	1	JCIPFLTR	IS.Indicate desired filters
		1... ....		JCIPFINT	"B'10000000'" Initialization DS values
		.1.. ....		JCIPFRST	"B'01000000'" Value when JES2 started
		..1. ....		JCIPFHST	"B'00100000'" History of value changes
21	(15)	BITSTRING	7		Reserved
<p>NOTE: Each filter below is enabled via one of the JCIPFLTR bit settings above.</p>					
28	(1C)	SIGNED	4	(12)	Reserved for future use
Begin output-only fields.					
76	(4C)	ADDRESS	4	JCICKPTR	0.Pointer to first CKPT (JCIHDR) data buffer.
80	(50)	SIGNED	4	JCICNMBR	0.Number of CKPT (JCIHDR) data buffers returned.
84	(54)	SIGNED	4	(11)	Reserved for future use
84	(54)	X'80'	0	JCIPSZE1	"*-JPCKP" Fix parameter End: Ver 1
84	(54)	X'80'	0	JCIPSZE	"*-JPCKP" JCIP Current version fixed parameter length

Table 98. Structure JCIPSTOR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JCIPSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JCIPSTID	Eyecatcher
8	(8)	ADDRESS	2	JCIPSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JCIPSTSP	Subpool of area
12	(C)	X'E6'	0	JCIPSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JCIPSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JCIPSTNX	Pointer to next area
20	(14)	ADDRESS	4	JCIPSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JCIPSTBG(0)	Start of data area
24	(18)	X'18'	0	JCIPSTSZ	"(JCIPSTBG-JCIPSTOR)" JCIPSTOR length

Table 99. Structure JCIHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JCIHDR	, CKPT info header Section
0	(0)	CHARACTER	8	JCIEYE	Eye catcher
8	(8)	ADDRESS	2	JCIOPRF	Offset to prefix section
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	ADDRESS	4	JCINXTP	Address of next CKPT info section
16	(10)	ADDRESS	4		Reserved for future use
16	(10)	X'14'	0	JCIHDSZ	"*-JCIHDR" Size of this section (Internal use only)
CKPT Information Section Identifiers					
		.... ....		JCIIDPRF	"X'00'" CKPT Info - Prefix
		.... ...1		JCIIDGEN	"X'01'" CKPT Info - General
CKPT Information Section Modifiers					
		.... ....		JCIIMGEN	"X'00'" Modifier - General

Table 100. Structure JCIPREF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JCIPREF	, CKPT info Prefix
0	(0)	ADDRESS	2	JCIPRLN	Length of entire CKPT info entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	JCIPRTP	Type = Prefix Section
3	(3)	ADDRESS	1	JCIPRMD	Type Mod = General
3	(3)	X'4'	0	JCIPRSZ	"*-JCIPREF" Size of this section

Table 101. Structure JCIGENI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JCIGENI	, CKPT General Information
0	(0)	ADDRESS	2	JCIGLN	Length of this section

Table 101. Structure JCIGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2	(2)	ADDRESS	1	JCIGTY	Type = General Info
3	(3)	ADDRESS	1	JCIGMD	Type Mod = General
4	(4)	BITSTRING	1	JCIGTYPE	Entry type (record type)
<p>The following values indicate the type of CKPT information being returned:</p> <p>JCIGTCUR - Values for the current checkpoint specification are returned.</p> <p>JCIGTINT - Values from the initialization data set are returned. Only data specified on the CKPTDEF statement are available (no size information etc).</p> <p>JCIGTFRS - Values from when JES2 performed the initial read of checkpoint data. This includes the results of any forwarding or initialization reconfiguration.</p> <p>JCIGTHST - Historical values of the CKPT info specification. Only changes to the in use CKPT1 and CKPT2 specifications are saved (change that require CKPT reconfiguration).</p> <p>Note: JCIGTFRS and JCIGTHST type areas are only returned if they differ for the CKPT1/CKPT2 info for the current checkpoint data set.</p>					
4	(4)	X'1'	0	JCIGTCUR	"1" Current checkpoint information
4	(4)	X'2'	0	JCIGTINT	"2" Initialization CKPT info
4	(4)	X'3'	0	JCIGTFRS	"3" Initial read CKPT info
4	(4)	X'4'	0	JCIGTHST	"4" Historical CKPT information
5	(5)	BITSTRING	1	JCIGFLG1	Flag byte
		1... ..		JCIG1MOD	"B'10000000'" 0 => MODE=DUAL 1 => MODE=DUPLEX
		.1.. ..		JCIG1DPX	"B'01000000'" 0 => DUPLEX=OFF 1 => DUPLEX=ON
		..1. ....		JCIG10PV	"B'00100000'" 0 => OPVERIFY=NO 1 => OPVERIFY=YES
		...1 ....		JCIG1NML	"B'00010000'" All members have all CKPTs alloc
		.... 1...		JCIG1C2E	"B'00001000'" DUPLEX mode and all members specified DUPLEX=OFF
6	(6)	BITSTRING	2	JCIGCLRC	Change log size
8	(8)	SIGNED	4	JCIGCURS	CKPT size (4K pages)
12	(C)	SIGNED	4	JCIGMAXS	Maximum CKPT size (4K pages)
16	(10)	BITSTRING	16	JCIGTIME	Time entry was created (STCKE)
32	(20)	SIGNED	2	JCIGFCNT	Number of files returned
34	(22)	SIGNED	2	JCIGFOFS	Offset to 1st file entry
36	(24)	SIGNED	2	JCIGFLEN	Length of file array entry
38	(26)	SIGNED	2		Reserved
40	(28)	SIGNED	4	JCIGFSTR(0)	Start of file entries
40	(28)	X'28'	0	JCIGENSZ	"*-JCIGENI" Size of this section (Internal use only)

Table 102. Structure JCIFILES

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JCIFILES	, Data set info data area
0	(0)	CHARACTER	8	JCIFNAME	File name (CKPTn or NEWCKPTn)
8	(8)	BITSTRING	1	JCIFFLG1	Flag byte

Table 102. Structure JCIFILES (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		JCIF1CKN	"B'10000000'" CKPTn data set (not NEWCKPTn)
		.1.. ....		JCIF1INU	"B'01000000'" CKPT is in use (CKPTn only)
		..1. ....		JCIF1VOL	"B'00100000'" CKPT is volatile (only if in use)
		...1 ....		JCIF1CF	"B'00010000'" CKPT is on CF
9	(9)	BITSTRING	3		Reserved
12	(C)	CHARACTER	6	JCIFVOL	Volume (if DASD)
18	(12)	CHARACTER	44	JCIFDSN	Data set name (if DASD)
62	(3E)	CHARACTER	16	JCIFSTR	Structure name (if CF)
78	(4E)	CHARACTER	2		Reserved
The following fields are only available for CKPTn data sets that are currently in use and allocated on this member (not MODE=DUPLEX,DUPLEX=OFF)					
80	(50)	SIGNED	4	JCIFCAP	Capacity of file (4K pages)
84	(54)	SIGNED	4	JCIFUSED	Current amount in use (4K pages)
The size fields are defined as follows: For DASD JCIFCURS - Data set size in tracks JCIFMAXS - Always same as JCIFCURS For CF JCIFCURS - Current number of 1K blocks JCIFMAXS - Maximum number of 1K blocks					
88	(58)	SIGNED	4	JCIFCURS	Current size of file
92	(5C)	SIGNED	4	JCIFMAXS	Maximum size of file
96	(60)	SIGNED	4	JCIFTRKB	Track capacity (bytes) for CKPT on DASD assuming 4K records
96	(60)	X'64'	0	JCIFSIZ	"*-JCIFILES" Length of basic section (Internal use only)

Table 103. Cross Reference for IAZJPCKP

Name	Offset	Hex Tag
JCICKPTR	4C	
JCICNMBR	50	0
JCIEYE	0	D1C3C9C8
JCIFCAP	50	
JCIFCURS	58	
JCIFDSN	12	
JCIFFLG1	8	
JCIFILES	0	
JCIFMAXS	5C	
JCIFNAME	0	
JCIFSIZ	60	64
JCIFSTR	3E	
JCIFTRKB	60	
JCIFUSED	54	

Table 103. Cross Reference for IAZJPCPKP (continued)

Name	Offset	Hex Tag
JCIFVOL	C	
JCIF1CF	8	10
JCIF1CKN	8	80
JCIF1INU	8	40
JCIF1VOL	8	20
JCIGCLRC	6	
JCIGCURS	8	
JCIGENI	0	
JCIGENSZ	28	28
JCIGFCNT	20	
JCIGFLEN	24	
JCIGFLG1	5	
JCIGFOFS	22	
JCIGFSTR	28	
JCIGLN	0	28
JCIGMAXS	C	
JCIGMD	3	
JCIGTCUR	4	1
JCIGTFRS	4	3
JCIGTHST	4	4
JCIGTIME	10	
JCIGTINT	4	2
JCIGTY	2	
JCIGTYPE	4	
JCIG1C2E	5	8
JCIG1DPX	5	40
JCIG1MOD	5	80
JCIG1NML	5	10
JCIG10PV	5	20
JCIHDR	0	
JCIHDSZ	10	14
JCIIDGEN	10	1
JCIIDPRF	10	0
JCIIMGEN	10	0
JCINXTP	C	
JCIOPRF	8	14
JCIPCVRL	B	1
JCIPCVRM	B	0
JCIPFHST	14	20

Table 103. Cross Reference for IAZJPCPK (continued)

Name	Offset	Hex Tag
JCIPFINT	14	80
JCIPFLTR	14	0
JCIPFRST	14	40
JCIPID	0	
JCIPLN	8	
JCIPREF	0	
JCIPRLN	0	
JCIPRMD	3	
JCIPRSZ	3	4
JCIPRTP	2	
JCIPSTBG	18	
JCIPSTCP	14	
JCIPSTHL	8	
JCIPSTID	0	D1C3C9D7
JCIPSTNX	10	
JCIPSTOR	0	
JCIPSTPL	C	E6
JCIPSTRP	10	
JCIPSTSP	C	0
JCIPSTSZ	18	18
JCIPSTTL	D	
JCIPSVR#	B	100
JCIPSIZE	54	80
JCIPSIZE1	54	80
JCIPVER	A	
JCIPVERL	A	
JCIPVERM	B	
JCIPVERO	C	0
JCIPV010	B	100
JPCPK	0	

## IAZJPCLS information

### IAZJPCLS programming interface information

The following fields are **NOT** programming interface information:

- CLMGENSZ
- CLMHDSZ
- CLM3FSZ
- CLM3MLSZ

- CLSGENSZ
- CLSHDSZ
- CLS2FSZ
- CLS3FSZ
- CLS3TLSZ
- JPCLSTBG
- JPCLSTCP
- JPCLSTHL
- JPCLSTID
- JPCLSTNX
- JPCLSTOR
- JPCLSTPL
- JPCLSTRP
- JPCLSTSP
- JPCLSTTL
- JPCLUSER

## IAZJPCLS heading information

<b>Common name:</b>	JES Class Information Parameter List for JES Properties SSI 82
<b>Macro ID:</b>	IAZJPCLS
<b>DSECT name:</b>	JPCLS
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'JPCLASSD' Offset: JPCLID Length: L'JPCLID
<b>Storage attributes:</b>	Subpool: Parameter List = Subpool of Caller Output Data = Subpool 230 Key: Parameter List = Key of Caller Output Data = Key 1 Residency: Virtual = 31 bit private storage Real = 64 bit storage
<b>Size:</b>	See JPCLSZE
<b>Created by:</b>	Caller of SSI function 'SSOBSSJP' = 82
<b>Pointed to by:</b>	SSJPUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by programs to request Class Data from the JES subsystem.

## IAZJPCLS mapping

Table 104. Structure JPCLS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPCLS	



Table 104. Structure JPCLS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	8	JPCLID	I.Eye catcher
8	(8)	ADDRESS	2	JPCLLEN	I.Length of JPCLS parameter list
<p>There are two 2 byte versions for this SSOB extension. JPCLVER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JPCLVER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JPCLVER0 may be higher than JPCLVER. In this case, only the fields valid at the JPCLVER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JPCLVER(0)	I.Parm list version/modifier
10	(A)	ADDRESS	1	JPCLVERL	I.Parm list version level
11	(B)	ADDRESS	1	JPCLVERM	I.Parm list version modifier
11	(B)	BITSTRING	0	JPCLV010	"X'0100'" Initial version number of IAZJPCLS
11	(B)	BITSTRING	0	JPCLV020	"X'0200'" Limited resource support in JES2
11	(B)	BITSTRING	0	JPCLVER#	"X'0200'" Service version number of IAZJPCLS - Latest Version
11	(B)	X'2'	0	JPCLCVRL	"2" Current version level
11	(B)	X'0'	0	JPCLCVRM	"0" Current version modifier
12	(C)	SIGNED	2	JPCLVER0	O.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved
16	(10)	SIGNED	4	JPCLUSER(0)	Placeholder. Do not use.
<p>JPCLSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JPCLSTRP	Storage management anchor.
Begin input-only fields.					
20	(14)	BITSTRING	1	JPCLFLG1	IS.Flag byte
		1... ....		JPCL1CLS	"B'10000000'" Return data for class name (see JPCLCNAM)
		.1.. ....		JPCL1GRP	"B'01000000'" Return data for job class group name (see JPCLGNAM)
21	(15)	BITSTRING	3		Reserved for future use
NOTE: Each filter below is enabled via one of the bit settings above.					
24	(18)	CHARACTER	8	JPCLCNAM	IS*.Class name for filter
32	(20)	CHARACTER	8	JPCLGNAM	IS*.Class group name as a filter
40	(28)	SIGNED	4	(18)	Reserved for future use
Begin output-only fields.					

Table 104. Structure JPCLS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
112	(70)	ADDRESS	4	JPCLDPTR	0.Pointer to first Class (CLSHDR) data buffer. See output data discussion below for layout.
116	(74)	SIGNED	4	JPCLNCLS	0.Number of Class (CLSHDR) data buffers returned.
120	(78)	SIGNED	4	(20)	Reserved for future use
120	(78)	X'C8'	0	JPCLSZE1	"*-JPCLS" Fixed parameter end: Ver 1
120	(78)	X'C8'	0	JPCLSZE2	"*-JPCLS" Fixed parameter end: Ver 2
120	(78)	X'C8'	0	JPCLSZE	"*-JPCLS" JPCLS Current version fixed parameter length

Table 105. Structure JPCLSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPCLSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JPCLSTID	Eyecatcher
8	(8)	ADDRESS	2	JPCLSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JPCLSTSP	Subpool of area
12	(C)	X'E6'	0	JPCLSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JPCLSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JPCLSTNX	Pointer to next area
20	(14)	ADDRESS	4	JPCLSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JPCLSTBG(0)	Start of data area
24	(18)	X'18'	0	JPCLSTSZ	"(JPCLSTBG-JPCLSTOR)" JPCLSTOR length

Table 106. Structure CLSHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLSHDR	, Class Header
0	(0)	CHARACTER	8	CLSID	Eye catcher
8	(8)	ADDRESS	2	CLSOPRF	Offset to prefix section
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	CLSNXTP	Address of next Class
16	(10)	ADDRESS	4	CLSFRSTM	Address of first member
16	(10)	X'14'	0	CLSHDSZ	"*-CLSHDR" Size of this section (internal use only)

## Class Section Identifiers

.... ....	CLSIDPRF	"X'00'" Class Info - Prefix
.... ..1	CLSIDGEN	"X'01'" Class Info - General
.... ..1.	CLSIDJS2	"X'02'" Class Info - JES2
.... ..11	CLSIDJS3	"X'03'" Class Info - JES3

## Class Section Modifiers

.... ....	CLSIMGEN	"X'00'" Modifier - General
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Table 107. Structure CLSPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLSPREF	, Class Prefix
0	(0)	ADDRESS	2	CLSPRLN	Length of entire Class entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	CLSPRTP	Type = Prefix Section
3	(3)	ADDRESS	1	CLSPRMD	Type Mod = General
3	(3)	X'4'	0	CLSPRSZ	"*-CLSPREF" Size of this section (internal use only)

Table 108. Structure CLSGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLSGENI	, Class General Information
0	(0)	ADDRESS	2	CLSGLN	Length of this section
2	(2)	ADDRESS	1	CLSGTY	Type = General Info
3	(3)	ADDRESS	1	CLSGMD	Type Mod = General
4	(4)	CHARACTER	8	CLSGNAME	Class Name
12	(C)	BITSTRING	1	CLSGFLG1	Class Flag 1
		1... ....		CLSG1WLM	"B'10000000" Class is in WLM mode
		.1.. ....		CLSG1NAC	"B'01000000" JOB class is not enabled for new work (jobs trying to use this class will fail input processing)
		...1 ....		CLSG1JRN	"B'00010000" No journal option
		.... 1...		CLSG1SYM	"B'00001000" System symbols substitution in batch jobs is supported
		.... .1..		CLSG1GST	"B'00000100" GDGBIAS default set to STEP
		.... ..1.		CLSG1JCA	"B'00000010" JES cancel command restricted
13	(D)	BITSTRING	1	CLSGREST	Restart Options
		.... 1...		CLSGRCAN	"B'00001000" Print output, then cancel the job (JES3 only)
		.... .1..		CLSGRHLD	"B'00000100" Hold the job (JES3 only)
		.... ..1.		CLSGRPRT	"B'00000010" Print output, then hold the job (JES3 only)
		.... ...1		CLSGRSTR	"B'00000001" Allow warmstart to re-queue to Execution Phase
14	(E)	BITSTRING	1		Reserved
15	(F)	BITSTRING	1	CLSGJFLG	JESLOG default settings
		1... ....		CLSGELIG	"B'10000000" Spin eligible
		.1.. ....		CLSGTIMI	"B'01000000" Spin on time interval
		..1. ....		CLSGTIMD	"B'00100000" Spin on time of day
		...1 ....		CLSGLINE	"B'00010000" Spin upon line delta
		.... 1...		CLSGSUP	"B'00001000" Suppress
		.... ....		CLSGNOSP	"B'00000000" No spin
16	(10)	SIGNED	4	CLSGJVAL	Spin value. Number of seconds if CLSGTIMI. Number of seconds past midnight if CLSGTIMD. Number of lines if CLSGLINE.

Table 108. Structure CLSGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
NOTE: The following four values (CLSGMAXJ, CLSGCURJ, CLSGQSIZ, and CLSGHELD) are JESplex-wide counts.					
20	(14)	SIGNED	4	CLSGMAXJ	Max number of concurrently executing jobs of this class (TDEPTH for JES3 if specified)
24	(18)	SIGNED	4	CLSGCURJ	Current number of concurrently executing jobs of this class
28	(1C)	SIGNED	4	CLSGQSIZ	Number of jobs of this class eligible for execution (awaiting job selection) (JES2 only)
32	(20)	SIGNED	4	CLSGHELD	Number of jobs of this class that are held (JES2 only)
36	(24)	CHARACTER	8	CLSGGRP	Job class group name
44	(2C)	CHARACTER	80	CLSGDESC	Job class description
44	(2C)	X'7C'	0	CLSGENSZ	"*-CLSGENI" Size of this section (internal use only)

Table 109. Structure CLSJES2I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLSJES2I	, JES2-specific Class Info
0	(0)	ADDRESS	2	CLS2LN	Length of this section
2	(2)	ADDRESS	1	CLS2TY	Type = JES2 Info
3	(3)	ADDRESS	1	CLS2MD	Type Mod = General
4	(4)	BITSTRING	1	CLS2JBFL	Job class flag
		1... ....		CLS2BCH	"B'10000000" Batch job
		.1.. ....		CLS2TSU	"B'01000000" Time sharing user
		..1. ....		CLS2STC	"B'00100000" Started task
		.... 1...		CLS2NOUT	"B'00001000" No output option
5	(5)	BITSTRING	1	CLS2TYPR	TYPRUN setting
		..1. ....		CLS2HOLD	"B'00100000" TYPRUN = HOLD
		.... .1..		CLS2SCAN	"B'00000100" TYPRUN = SCAN
		.... ..1.		CLS2COPY	"B'00000010" TYPRUN = COPY
6	(6)	BITSTRING	1	CLS2CACT	Accounting information
		.... .1..		CLS2CSWA	"B'00000100" SWA above 16M line
		.... ..1.		CLS2CNUM	"B'00000010" Account number required
		.... ...1		CLS2CNAM	"B'00000001" Programmer name required
		.... ....		CLS2CNON	"B'00000000" No information required
6	(6)	X'3'	0	CLS2CALL	"CLS2CNUM+CLS2CNAM" Account number and programmer name required
7	(7)	CHARACTER	8	CLS2CTIM(0)	Default for job time limit
7	(7)	CHARACTER	6	CLS2CMNT	Maximum minutes
13	(D)	CHARACTER	2	CLS2CSEC	Maximum seconds
15	(F)	CHARACTER	5	CLS2CREG(0)	Default for job step region
15	(F)	CHARACTER	4	CLS2CRGN	Numeric specification
19	(13)	CHARACTER	1	CLS2CRGA	Kilobyte or megabyte specification
19	(13)	X'D2'	0	CLS2CRKB	"C'K'" Kilobyte specification

Table 109. Structure CLSJES2I (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
19	(13)	X'D4'	0	CLS2CRMB	"C'M" Megabyte specification
20	(14)	CHARACTER	1	CLS2CMND	Command disposition
20	(14)	X'F0'	0	CLS2CEXE	"C'0" Pass the command through
20	(14)	X'F1'	0	CLS2CDSP	"C'1" Display and then pass cmd
20	(14)	X'F2'	0	CLS2CVER	"C'2" Ask operator disposition
20	(14)	X'F3'	0	CLS2CIGN	"C'3" Ignore the command
21	(15)	CHARACTER	1	CLS2CBLP	Bypass label processing
		.... ..1		CLS2CBLY	"B'00000001" Process bypass label pair
22	(16)	CHARACTER	1	CLS2COCG	Operator command group
		.... .1..		CLS2CGSY	"B'00000100" Group 1 commands (SYS)
		.... ..1.		CLS2CGIO	"B'00000010" Group 2 commands (I/O)
		.... ....1		CLS2CGC0	"B'00000001" Group 3 commands (CONS)
22	(16)	X'7'	0	CLS2CGAL	"CLS2CGSY+CLS2CGIO+CLS2CGC0" All groups
23	(17)	CHARACTER	1	CLS2CJCL	Default MSGLEVEL, JCL listed if not MSGLEVEL
24	(18)	CHARACTER	1	CLS2CMMSG	Allocation termination messages value of MSGLEVEL
25	(19)	BITSTRING	1	CLS2JOPT	Job options flag
		...1 ....		CLS2NLOG	"B'00010000" No joblog indicator
		.... 1...		CLS2XBMI	"B'00001000" XBM II job class
		.... ....1		CLS2QHLD	"B'00000001" Class queue is held
26	(1A)	CHARACTER	8	CLS2XBM	Procedure name for XBM II jobs
34	(22)	CHARACTER	2	CLS2PRCN	Procedure library number
36	(24)	BITSTRING	1	CLS2SMF	SMF flags
		..1. ....		CLS2NUS0	"B'00100000" Do not take IEFUS0 exit
		.... .1..		CLS2NTY6	"B'00000100" Do not produce Type 6 SMF record
		.... ..1.		CLS2NUJP	"B'00000010" Do not take IEFUJP exit
		.... ....1		CLS2NT26	"B'00000001" Do not produce Type 26 SMF record
37	(25)	CHARACTER	3	CLS2PERF	Default performance group
40	(28)	CHARACTER	1	CLS2DMCL	Default msgclass, TSU and STC classes only
41	(29)	BITSTRING	1	CLS2FLG1	Normal output disposition for JES data sets
		1... ....		CLS21CDP	"B'10000000" Conditionally purge output for jobs in this class
		...1 ....		CLS21NOP	"B'00010000" NORMAL OUTDISP=PURGE
		.... 1...		CLS21NOW	"B'00001000" NORMAL OUTDISP=WRITE
		.... .1..		CLS21NOH	"B'00000100" NORMAL OUTDISP=HOLD
		.... ..1.		CLS21NOK	"B'00000010" NORMAL OUTDISP=KEEP
		.... ....1		CLS21NOL	"B'00000001" NORMAL OUTDISP=LEAVE
42	(2A)	BITSTRING	1	CLS2FLG2	Abnormal output disposition for JES data sets
		...1 ....		CLS22AOP	"B'00010000" ABNORMAL OUTDISP=PURGE
		.... 1...		CLS22AOW	"B'00001000" ABNORMAL OUTDISP=WRITE
		.... .1..		CLS22AOH	"B'00000100" ABNORMAL OUTDISP=HOLD

Table 109. Structure CLSJES2I (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ..1.		CLS22AOK	"B'00000010'" ABNORMAL OUTDISP=KEEP
		.... ...1		CLS22AOL	"B'00000001'" ABNORMAL OUTDISP=LEAVE
43	(2B)	BITSTRING	1	CLS2FLG3	Processing flags
		1... ....		CLS23PR8	"B'10000000'" 8 character PROC name
		.1.. ....		CLS23SPC	"B'01000000'" Special class (STC/TSU)
		.... .1..		CLS23SNV	"B'00000100'" Default SCHENV (CLS2SCHE) no longer defined to WLM
		.... ..1.		CLS23DOK	"B'00000010'" Duplicate job names OK for this job class
		.... ...1		CLS23LSR	"B'00000001'" JOBRCL=LASTRC specified for this job class
44	(2C)	CHARACTER	16	CLS2SCHE	Default SCHENV
60	(3C)	BITSTRING	1	CLS2CFL1	Converter parm byte
		1... ....		CLS21NQU	"B'10000000'" - Automatically downgrade SYSDSN ENQs to SHR control when no longer needed EXCLUSIVE (DSENQSHR=AUTO)
		.1.. ....		CLS21NQA	"B'01000000'" - Allow jobs to downgrade SYSDSN ENQs to SHR control when no longer needed EXCL when requested via JCL DSENQSHR keyword on JOB stmt (DSENQSHR=ALLOW) - Both bits off indicates that SYSDSN ENQ SHR function is disabled (DSENQSHR=DISALLOW)
		..1. ....		CLS21SYM	"B'00100000'" - System symbols substitution in batch jobs is supported (SYMSYS=ALLOW) Deprecated, use CLSG1SYM
61	(3D)	BITSTRING	1	CLS2PRRT	STARTBY promotion rate
62	(3E)	CHARACTER	8	CLS2PROC	Procedure library name
70	(46)	SIGNED	2	CLS2RLCT	Number of resource limits entries (CLS2RLIM)
72	(48)	SIGNED	2	CLS2RLOF	Offset to first resource limits entry
74	(4A)	SIGNED	2	CLS2RLLN	Length of each resource entry
76	(4C)	SIGNED	4	CLS2FENT(0)	First resource limit entry (internal use only)
76	(4C)	X'4C'	0	CLS2FSZ	"*-CLSJES2I" Fixed section length (internal use only)

Table 110. Structure CLS2RLIM

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLS2RLIM	, Resource limit entry
0	(0)	CHARACTER	8	CLS2RNAM	Resource name
8	(8)	BITSTRING	2	CLS2RTYP	Resource type
8	(8)	X'1'	0	CLS2RTTG	"1" TG (SP00L) usage
8	(8)	X'2'	0	CLS2RTJQ	"2" JQE usage
8	(8)	X'3'	0	CLS2RTJO	"3" JOE usage
8	(8)	X'4'	0	CLS2RTBT	"4" BERT usage
10	(A)	BITSTRING	1	CLS2RACT	Limit enforcement type
10	(A)	X'1'	0	CLS2RATK	"1" None - tracking only
10	(A)	X'2'	0	CLS2RAWT	"2" Wait when limit exceeded
10	(A)	X'3'	0	CLS2RAFL	"3" Fail when limit exceeded

Table 110. Structure CLS2RLIM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
11	(B)	BITSTRING	1	CLS2RFG1	First flag byte
		1... ....		CLS2R1DA	"B'10000000'" Action is system default
		.1... ....		CLS2R1DL	"B'01000000'" Limit is system default
12	(C)	SIGNED	2	CLS2RPER	Percent (% * 100) of total resource pool that can be used by jobs in this cls
14	(E)	BITSTRING	2		Reserved for future use
14	(E)	X'10'	0	CLS2RLSZ	"*-CLS2RLIM" Array entry length (internal use only)

Table 111. Structure CLSJES3I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLSJES3I	, JES3-specific Class Info
0	(0)	ADDRESS	2	CLS3LN	Length of this section - includes variable length TLIMIT information
2	(2)	ADDRESS	1	CLS3TY	Type = JES3 Info
3	(3)	ADDRESS	1	CLS3MD	Type Mod = General
4	(4)	CHARACTER	8	CLS3GRP	Job class group name (same as CLSGGRP)
12	(C)	CHARACTER	8	CLS3PART	Spool partition name
20	(14)	SIGNED	2	CLS3TRK1	Primary track group allocation
22	(16)	SIGNED	2	CLS3TRK2	Secondary track group allocation
24	(18)	BITSTRING	1	CLS3SDEP	SDEPTH setting
25	(19)	BITSTRING	1	CLS3PTY	JES3 priority
26	(1A)	BITSTRING	1	CLS3FLG1	Flag byte
		...1 ....		CLS31DEF	"B'00010000'" ON -> Default class
27	(1B)	BITSTRING	1	CLS3JOPT	Job option
		1... ....		CLS3NLOG	"B'10000000'" Suppress JESMSG
		.1... ....		CLS3LOG	"B'01000000'" Log JESMSG
28	(1C)	ADDRESS	2	CLS3TLOF	Offset to 1st TLIMIT entry
30	(1E)	ADDRESS	2	CLS3TLCT	TLIMIT entry count
32	(20)	ADDRESS	2	CLS3TL SI	Size of a TLIMIT entry
34	(22)	BITSTRING	2		Reserved for future use
34	(22)	X'24'	0	CLS3FSZ	"*-CLSJES3I" Fixed section length (internal use only)

Table 112. Structure CLS3TLIM

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLS3TLIM	, TLIMIT entry
0	(0)	CHARACTER	8	CLS3TCLS	Controlling class name
8	(8)	SIGNED	4	CLS3TMAX	Maximum jobs in controlling class
12	(C)	SIGNED	4	CLS3TCUR	Current jobs in controlling class
12	(C)	X'10'	0	CLS3TLSZ	"*-CLS3TLIM" TLIMIT entry length (internal use only)

Table 113. Structure CLMHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLMHDR	, Member Header
0	(0)	CHARACTER	8	CLMID	Eyecatcher
8	(8)	ADDRESS	2	CLMOPRF	Offset to member prefix section.
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	CLMNXTM	Next member header address
12	(C)	X'10'	0	CLMHDSZ	"*-CLMHDR" Size of this section (internal use only)
Member Section Identifiers					
		1... ....		CLMIDPRF	"X'80'" Member Info - Prefix
		1... ...1		CLMIDGEN	"X'81'" Member Info - General
		1... ..1.		CLMIDJS2	"X'82'" Member Info - JES2
		1... ..11		CLMIDJS3	"X'83'" Member Info - JES3
Member Section Modifiers					
		1... ....		CLMIMGEN	"X'80'" Modifier - General
		1... ..1.		CLMIMJ2A	"X'82'" Modifier - JES2
		1... ..11		CLMIMJ3A	"X'83'" Modifier - JES3

Table 114. Structure CLMPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLMPREF	, Member Prefix
0	(0)	ADDRESS	2	CLMPRLN	Length of entire Member entry (Max value is 65535)
2	(2)	ADDRESS	1	CLMPRTPT	Type = Prefix Section
3	(3)	ADDRESS	1	CLMPRMD	Type Mod = General
3	(3)	X'4'	0	CLMPRSZ	"*-CLMPREF" Size of this section (internal use only)

Table 115. Structure CLMGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CLMGENI	, Member General Information
0	(0)	ADDRESS	2	CLMGLN	Length of this section
2	(2)	ADDRESS	1	CLMGTY	Type = General Info
3	(3)	ADDRESS	1	CLMGMD	Type Mod = General
4	(4)	CHARACTER	8	CLMGMNAM	Member name
12	(C)	CHARACTER	8	CLMGSNAM	MVS System name
20	(14)	BITSTRING	1	CLMGFLG1	Flag byte
		1... ....		CLMG1ENB	"B'10000000'" Class is enabled / active on member
		.1.. ....		CLMG1ACT	"B'01000000'" Member is active
		..1. ....		CLMG1PXQ	"B'00100000'" Class is on halted member, \$PXEQ issued (JES2 only)
		...1 ....		CLMG1DRN	"B'00010000'" Class is on draining member (JES2 only)
		.... 1...		CLMG1DEF	"B'00001000'" Class is defined on member (JES3 only)



Table 115. Structure CLMGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
21	(15)	BITSTRING	3		Reserved for future use
24	(18)	SIGNED	4	CLMGJMAX	Maximum job count for this class on member (MDEPTH for JES3 if specified)
28	(1C)	SIGNED	4	CLMGJCUR	Current active job count for this class on member
28	(1C)	X'20'	0	CLMGENSZ	"*-CLMGENI" Size of this section (internal use only)

Table 116. Structure CLMJES3I

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CLMJES3I	, Member JES3 specific information
0	(0)	ADDRESS	2	CLM3LN	Length of this section (variable length)
2	(2)	ADDRESS	1	CLM3TY	Type = JES3 Info
3	(3)	ADDRESS	1	CLM3MD	Type Mod = General
4	(4)	CHARACTER	8	CLM3SELM	Selection mode name
12	(C)	ADDRESS	2	CLM3MLOF	Offset to 1st MLIMIT entry
14	(E)	ADDRESS	2	CLM3MLCT	MLIMIT entry count
16	(10)	ADDRESS	2	CLM3MLSI	Size of a MLIMIT entry
18	(12)	BITSTRING	2		Reserved for future use
18	(12)	X'14'	0	CLM3FSZ	"*-CLMJES3I" Section fixed length (internal use only)

Table 117. Structure CLM3MLIM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CLM3MLIM	, MLIMIT entry
0	(0)	CHARACTER	8	CLM3MCLS	Controlling class name
8	(8)	SIGNED	4	CLM3MMAX	Maximum jobs in controlling class
12	(C)	SIGNED	4	CLM3MCUR	Current jobs in controlling class
12	(C)	X'10'	0	CLM3MLSZ	"*-CLM3MLIM" MLIMIT entry length (internal use only)

Table 118. Cross Reference for IAZJPCLS

Name	Offset	Hex	Tag
CLMGENI	0		
CLMGENSZ	1C		20
CLMGFLG1	14		
CLMGJCUR	1C		
CLMGJMAX	18		
CLMGLN	0		20
CLMGMD	3		
CLMGMNAM	4		
CLMGSNAM	C		
CLMGTY	2		
CLMG1ACT	14		40

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLMG1DEF	14	8
CLMG1DRN	14	10
CLMG1ENB	14	80
CLMG1PXQ	14	20
CLMHDR	0	
CLMHDSZ	C	10
CLMID	0	C3D3C1E2
CLMIDGEN	C	81
CLMIDJS2	C	82
CLMIDJS3	C	83
CLMIDPRF	C	80
CLMIMGEN	C	80
CLMIMJ2A	C	82
CLMIMJ3A	C	83
CLMJES3I	0	
CLMNXTM	C	
CLMOPRF	8	10
CLMPREF	0	
CLMPRLN	0	
CLMPRMD	3	
CLMPRSZ	3	4
CLMPRTP	2	
CLM3FSZ	12	14
CLM3LN	0	0
CLM3MCLS	0	
CLM3MCUR	C	
CLM3MD	3	
CLM3MLCT	E	
CLM3MLIM	0	
CLM3MLOF	C	
CLM3MLSI	10	
CLM3MLSZ	C	10
CLM3MMAX	8	
CLM3SELM	4	
CLM3TY	2	
CLSFRSTM	10	
CLSGCURJ	18	
CLSGDESC	2C	
CLSGELIG	F	80

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLSGENI	0	
CLSGENSZ	2C	7C
CLSGFLG1	C	
CLSGGRP	24	
CLSGHELD	20	
CLSGJFLG	F	
CLSGJVAL	10	
CLSGLINE	F	10
CLSGLN	0	7C
CLSGMAXJ	14	
CLSGMD	3	
CLSGNAME	4	
CLSGNOSP	F	0
CLSGQSI	1C	
CLSGRCAN	D	8
CLSGREST	D	
CLSGRHLD	D	4
CLSGRPRT	D	2
CLSGRSTR	D	1
CLSGSUP	F	8
CLSGTIMD	F	20
CLSGTIMI	F	40
CLSGTY	2	
CLSG1GST	C	4
CLSG1JCA	C	2
CLSG1JRN	C	10
CLSG1NAC	C	40
CLSG1SYM	C	8
CLSG1WLM	C	80
CLSHDR	0	
CLSHDSZ	10	14
CLSID	0	C3D3C1E2
CLSIDGEN	10	1
CLSIDJS2	10	2
CLSIDJS3	10	3
CLSIDPRF	10	0
CLSIMGEN	10	0
CLSJES2I	0	
CLSJES3I	0	

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLSNXTP	C	
CLSOPRF	8	14
CLSPREF	0	
CLSPRLN	0	
CLSPRMD	3	
CLSPRSZ	3	4
CLSPRTP	2	
CLS2BCH	4	80
CLS2CACT	6	
CLS2CALL	6	3
CLS2CBLP	15	
CLS2CBLY	15	1
CLS2CDSP	14	F1
CLS2CEXE	14	F0
CLS2CFL1	3C	
CLS2CGAL	16	7
CLS2CGC0	16	1
CLS2CGI0	16	2
CLS2CGSY	16	4
CLS2CIGN	14	F3
CLS2CJCL	17	
CLS2CMND	14	
CLS2CMNT	7	
CLS2CMMSG	18	
CLS2CNAM	6	1
CLS2CN0N	6	0
CLS2CNUM	6	2
CLS2C0CG	16	
CLS2C0PY	5	2
CLS2CREG	F	
CLS2CRGA	13	
CLS2CRGN	F	
CLS2CRKB	13	D2
CLS2CRMB	13	D4
CLS2CSEC	D	
CLS2CSWA	6	4
CLS2CTIM	7	
CLS2CVER	14	F2
CLS2DMCL	28	

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLS2FENT	4C	
CLS2FLG1	29	
CLS2FLG2	2A	
CLS2FLG3	2B	
CLS2FSZ	4C	4C
CLS2HOLD	5	20
CLS2JBFL	4	
CLS2JOPT	19	
CLS2LN	0	4C
CLS2MD	3	
CLS2NLOG	19	10
CLS2NOUT	4	8
CLS2NTY6	24	4
CLS2NT26	24	1
CLS2NUJP	24	2
CLS2NUS0	24	20
CLS2PERF	25	
CLS2PRCN	22	
CLS2PROC	3E	
CLS2PRRT	3D	
CLS2QHLD	19	1
CLS2RACT	A	
CLS2RAFL	A	3
CLS2RATK	A	1
CLS2RAWT	A	2
CLS2RFG1	B	
CLS2RLCT	46	
CLS2RLIM	0	
CLS2RLLN	4A	
CLS2RLOF	48	
CLS2RLSZ	E	10
CLS2RNAM	0	
CLS2RPER	C	
CLS2RTBT	8	4
CLS2RTJO	8	3
CLS2RTJQ	8	2
CLS2RTTG	8	1
CLS2RTYP	8	
CLS2R1DA	B	80

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLS2R1DL	B	40
CLS2SCAN	5	4
CLS2SCHE	2C	
CLS2SMF	24	
CLS2STC	4	20
CLS2TSU	4	40
CLS2TY	2	
CLS2TYPR	5	
CLS2XBM	1A	
CLS2XBMI	19	8
CLS21CDP	29	80
CLS21NOH	29	4
CLS21NOK	29	2
CLS21NOL	29	1
CLS21NOP	29	10
CLS21NOW	29	8
CLS21NQA	3C	40
CLS21NQU	3C	80
CLS21SYM	3C	20
CLS22A0H	2A	4
CLS22A0K	2A	2
CLS22A0L	2A	1
CLS22A0P	2A	10
CLS22A0W	2A	8
CLS23D0K	2B	2
CLS23LSR	2B	1
CLS23PR8	2B	80
CLS23SNV	2B	4
CLS23SPC	2B	40
CLS3FLG1	1A	
CLS3FSZ	22	24
CLS3GRP	4	
CLS3JOPT	1B	
CLS3LN	0	0
CLS3LOG	1B	40
CLS3MD	3	
CLS3NLOG	1B	80
CLS3PART	C	
CLS3PTY	19	

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
CLS3SDEP	18	
CLS3TCLS	0	
CLS3TCUR	C	
CLS3TLCT	1E	
CLS3TLIM	0	
CLS3TLOF	1C	
CLS3TLSI	20	
CLS3TLSZ	C	10
CLS3TMAX	8	
CLS3TRK1	14	
CLS3TRK2	16	
CLS3TY	2	
CLS31DEF	1A	10
JPCLCNAM	18	
JPCLCVRL	B	2
JPCLCVRM	B	0
JPCLDPTR	70	
JPCLFLG1	14	
JPCLGNAM	20	
JPCLID	0	D1D7C3D3
JPCLLEN	8	
JPCLNCLS	74	
JPCLS	0	
JPCLSTBG	18	
JPCLSTCP	14	
JPCLSTHL	8	
JPCLSTID	0	D1D7C3D3
JPCLSTNX	10	
JPCLSTOR	0	
JPCLSTPL	C	E6
JPCLSTRP	10	
JPCLSTSP	C	
JPCLSTSZ	18	18
JPCLSTTL	D	
JPCLSIZE	78	C8
JPCLSIZE1	78	C8
JPCLSIZE2	78	C8
JPCLUSER	10	
JPCLVER	A	

Table 118. Cross Reference for IAZJPCLS (continued)

Name	Offset	Hex Tag
JPCLVER#	B	200
JPCLVERL	A	
JPCLVERM	B	
JPCLVERO	C	0
JPCLV010	B	100
JPCLV020	B	200
JPCL1CLS	14	80
JPCL1GRP	14	40

## IAZJPITD information

### IAZJPITD programming interface information

The following fields are **NOT** programming interface information:

- ITGGSIZE
- ITGHDHSZ
- ITIGSIZE
- ITIHSIZE
- ITORSTBG
- ITORSTCP
- ITORSTHL
- ITORSTID
- ITORSTNX
- ITORSTOR
- ITORSTPL
- ITORSTSP
- ITORSTTL
- ITSMSIZE
- IT2CSIZE
- IT2ISIZE
- IT2JSIZE
- IT3CSIZE
- IT3GSIZE
- IT3HSIZE
- IT3JSIZE
- IT3SSIZE
- JPITSTRP
- JPITSIZE

### IAZJPITD heading information

**Common name:** Parameters and data structures returned by Initiator Data SSI (subfunction of SSI 82)



**Macro ID:** IAZJPITD

**DSECT name:** See below for DSECT names of individual data structures

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** SSI parameter list - 'JPINITDT'  
See other DSECTs for the eye-catchers they use.  
Offset: JPITSSID  
Length: L'JPITSSID

**Storage attributes:** Subpool: parameter list - determined by caller  
output data - subpool 230  
Key: parameter list - determined by caller  
output data - key 1  
Residency: Virtual = 31 bit private storage  
real = 64 bit storage

**Size:** See below for sizes of individual DSECTs

**Created by:** Parameter list - by SSI caller  
Output data - by SSI 82

**Pointed to by:** SSJPUSER in the SSOB extension for SSI 82  
(see IAZSSJP macro)

**Serialization:** None

**Function:** This macro provides the mapping of the data structures used by Initiator Data SSI (subfunction of SSI 82):  
- SSI parameter list  
- SSI output data  
- storage areas managed by the SSI

## IAZJPITD mapping

Table 119. Structure JPITD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPITD	
0	(0)	CHARACTER	8	JPITSSID	I.Eye catcher
8	(8)	ADDRESS	2	JPITLEN	I.Length of JPITD parameter list
10	(A)	BITSTRING	2	JPITSVER(0)	I.Parm list version/modifier
10	(A)	ADDRESS	1	JPITSVRL	I.Parm list version level
11	(B)	ADDRESS	1	JPITSVRM	I.Parm list version modifier
11	(B)	BITSTRING	0	JPITSVR1	"X'0100'" Service version number of IAZJPITD - original
11	(B)	BITSTRING	0	JPITSVR2	"X'0200'" Service version number introduced by z/OS 1.12
	.... ..1.			JPITCVRL	"X'02'" Service version level of IAZJPITD - Latest Ver
	.... ....			JPITCVRM	"X'00'" Service version modifier of IAZJPITD - Latest Ver
11	(B)	BITSTRING	0	JPITSVR#	"X'0200'" Current version/modifier SET JPITSVER TO JPITSVR#
12	(C)	SIGNED	2	JPITVER0	O.Subsystem version/modifier
12	(C)	BITSTRING	0	JPITOVR1	"X'0100'" Output version number original

Table 119. Structure JPITD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	BITSTRING	0	JPITOVR2	"X'0200'" Output version number introduced by z/OS 1.12
12	(C)	BITSTRING	0	JPITOVR#	"X'0200'" Latest version number
14	(E)	SIGNED	2		Reserved
16	(10)	SIGNED	2	JPITUSER(0)	
<p>JPITSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JPITSTRP	Storage management anchor
20	(14)	BITSTRING	1	JPITFLG1	IS.Selection flag byte:
	1... ..			JPIT1GRP	"B'10000000'" Return Initiator Groups indicated by JPITGNAM filter
<p>The next 2 bits are used together to determine system/member name filtering. If neither JPIT1NAS nor JPIT1NAM are specified, SSI will only return data from the system where SSI was called. To request information from other systems (or members) in a JESplex, specify system or member selection filter.</p>					
	.1.. ....			JPIT1NAS	"B'01000000'" Return Initiator information from MVS system name indicated by JPITSNAM
	..1. ....			JPIT1NAM	"B'00100000'" Return Initiator information from JES member name indicated by JPITMNAM
<p>The next 2 bits are used together to determine class filtering. The first bit, JPIT1CLS, set to ON indicates that class filtering is requested. If class filtering is requested then the second bit JPIT1CLW has meaning. If JPIT1CLW is OFF, the caller is requesting jobclass filtering. If JPIT1CLW is ON, the caller is requesting service class filtering.</p> <p>JES2 Usage =====</p> <p>Jobclass filtering for JES2 Initiators returns any JES2 Initiators that have the 1 character jobclass specified in field JPITSCLS in their list of supported job classes. Jobclass filtering is not valid if WLM group filtering is requested. If JPIT1CLW is on, the caller is requesting service class filtering. Service class filtering for WLM initiators would return any WLM initiators that are selecting on the service class specified in field JPITSCLS. Wildcard names are supported for service class filtering. Service class filtering is not valid if JES2 group filtering is requested.</p> <p>JES3 Usage =====</p> <p>For JES3, class filtering will only take place if JPIT1CLS is set ON and JPIT1CLW is set OFF. JES3 will only do class filtering for job classes and will ignore class filtering for service classes. Wildcard names are supported for jobclass filtering.</p>					
	...1 ....			JPIT1CLS	"B'00010000'" Return Initiators based on Class indicated by JPITSCLS
	.... 1...			JPIT1CLW	"B'00001000'" If this bit is on, interpret field JPITSCLS as a service class. If this bit is off, interpret JPITSCLS as a job class.

Table 119. Structure JPITD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		JPIT1DOM	"B'00000100'" If this bit is on, authorized caller is requesting a security label dominance check for batch job data (JES2)
<p>The next 2 bits are used together to determine filtering by initiator mode. If both bits are OFF, the SSI will return data for both JES and WLM mode initiators. Filtering by initiator mode is independent from filtering by initiator group name (see JPIT1GRP and JPITGNAM). For example, for JES2 requesting initiator group "JES2" AND WLM mode initiators will not return any data.</p>					
		.... ..1.		JPIT1JES	"B'00000010'" Return JES mode initiators
		.... ....1		JPIT1WLM	"B'00000001'" Return WLM mode initiators
21	(15)	BITSTRING	3		Reserved for future use
<p>Filter field JPITGNAM may contain an Initiator group name. Bit JPIT1GRP indicates if filter JPITGNAM is used. JES2 accepts the constant group names "JES2" and "WLM". JES3 group names are not constants.</p>					
24	(18)	CHARACTER	8	JPITGNAM	IS*.Name of Initiator group to be returned.
<p>Filter field JPITSNAM may contain a MVS system name. Bit JPIT1NAS indicates if the filter JPITSNAM is used. Wildcard names are supported.</p>					
32	(20)	CHARACTER	8	JPITSNAM	IS*.Report Initiator info for this MVS system name.
<p>Filter field JPITMNAM may contain a JES member name. Bit JPIT1NAM indicates if the filter JPITMNAM is used. Wildcard names are supported.</p>					
40	(28)	CHARACTER	8	JPITMNAM	IS*.Report Initiator info for this JES mbr name.
<p>Filter field JPITSCLS may contain a service or job class. Refer to the comments for filter bits JPIT1CLS and JPIT1CLW for usage information.</p>					
48	(30)	CHARACTER	8	JPITSCLS	IS*.Report Initiator info for this job/serv class
<p>Filter field JPITSTAT will be used to select initiators by status if set. Note that WLM and JES3 initiators support ACTIVE/INACTIVE states only (JPITSACT/JPITSINA).</p>					
56	(38)	BITSTRING	1	JPITSTAT	IS.Report Initiator info for this status
		1... ....		JPITSDMI	"B'10000000'" Draining
		.1.. ....		JPITSDRD	"B'01000000'" Drained
		..1. ....		JPITSHLI	"B'00100000'" Halting
		...1 ....		JPITSHLD	"B'00010000'" Halted
		.... 1...		JPITSINA	"B'00001000'" Inactive
		.... .1..		JPITSACT	"B'00000100'" Active
		.... ..1.		JPITSSTR	"B'00000010'" Starting

Table 119. Structure JPITD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
57	(39)	BITSTRING	3		Reserved for future use
60	(3C)	SIGNED	4	(11)	Reserved for future use
104	(68)	ADDRESS	4	JPITDPTR	0.Pointer to first initiator group data buffer (see ITGHDHDR)
108	(6C)	SIGNED	4	JPITNIG	0.Number of initiator groups returned
112	(70)	SIGNED	4	(10)	Reserved for future use
152	(98)	DBL WORD	8	(0)	Ensure size Dword aligned
152	(98)	X'98'	0	JPITSZE1	"*-JPITD" Fixed parameter end: ver 1
152	(98)	SIGNED	4	JPITV2(0)	Version 2 extension
152	(98)	ADDRESS	4	JPITMPTR	0.Ptr to first system/member data area (see ITSMHDR)
156	(9C)	SIGNED	4	JPITMNUM	0.Number of system/member data areas returned
160	(A0)	DBL WORD	8	(0)	Ensure size Dword aligned
160	(A0)	X'A0'	0	JPITSZE2	"*-JPITD" Fixed parameter end: ver 2
160	(A0)	X'A0'	0	JPITSZE	"*-JPITD" JPITD Current version fixed parameter length

Table 120. Structure ITGHDHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ITGHDHDR	, Initiator Group Header
0	(0)	CHARACTER	8	ITGHEYE	Eye catcher
8	(8)	ADDRESS	2	ITGHOHDR	Offset to first section
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	ITGHNEXT	Address of next Group
16	(10)	ADDRESS	4	ITGHINIT	Address of first Initiator in group
20	(14)	SIGNED	4	ITGHNINT	Number of Initiators in group
20	(14)	X'18'	0	ITGHDHSZ	"*-ITGHDHDR" Size of header(internal use only)
Initiator Group Section Identifiers					
	.... ....			ITORTGPR	"X'00'" Group Prefix
	.... ...1			ITORTGGI	"X'01'" Group General Information
	.... ..11			ITORTGJ3	"X'03'" JES3 Group Information
Initiator Group Section Modifiers					
	.... ....			ITORTGPM	"X'00'" Group Prefix Modifier
	.... ....			ITORTGGM	"X'00'" Group General Info Modifier
	.... ....			ITORTG3I	"X'00'" JES3 Group Information
	.... ...1			ITORTG3S	"X'01'" JES3 Group System Info
	.... ..1.			ITORTG3J	"X'02'" JES3 Group Jobclass Info

Table 121. Structure ITGPDGRP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ITGPDGRP	, Initiator Group Prefix Data
0	(0)	ADDRESS	2	ITGPGLN	Length of entire Group entry (Max value is 65535)

Table 121. Structure ITGPDGRP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	ADDRESS	1	ITGPGTYP	Type of this section
3	(3)	ADDRESS	1	ITGPGMOD	Modifier
3	(3)	X'4'	0	ITGPSIZE	"*-ITGPDGRP" Initiator Group Prefix section length

Table 122. Structure ITGGDGGI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ITGGDGGI	, Initiator Group General Dta
0	(0)	ADDRESS	2	ITGGLEN	Length of section
2	(2)	ADDRESS	1	ITGGTYPE	Type of this section
3	(3)	ADDRESS	1	ITGGMOD	Modifier
4	(4)	CHARACTER	8	ITGGGNAM	Group name
12	(C)	BITSTRING	1	ITGGFLAG	Group Flags
	1... ....			ITGGWLM	"B'10000000'" ON - Group Mode WLM OFF - Group Mode JES
13	(D)	BITSTRING	3		Reserved
13	(D)	X'10'	0	ITGGSIZE	"*-ITGGDGGI" Initiator Group General Information section length (internal use only)

Table 123. Structure IT3GDG3I

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IT3GDG3I	, JES3 Group Information Data
0	(0)	ADDRESS	2	IT3GLEN	Length of section
2	(2)	ADDRESS	1	IT3GTYPE	Type of this section - JES3
3	(3)	ADDRESS	1	IT3GMOD	Modifier - Group info
4	(4)	CHARACTER	4	IT3G3IBR	JES3 group barrier 0-15 - job priority 16 - no barrier "PRTY" - each job priority is a barrier
8	(8)	BITSTRING	1	IT3GFLAG	JES3 group flag
	1... ....			IT3GDEFG	"B'10000000'" ON - This is the JES3 default group OFF - This is not the JES3 default group
9	(9)	BITSTRING	3		Reserved for future use
9	(9)	X'C'	0	IT3GSIZE	"*-IT3GDG3I" JES3 Group Information section length (internal use only)

Table 124. Structure IT3HDG3S

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IT3HDG3S	, JES3 Group System Info Data
0	(0)	ADDRESS	2	IT3HLEN	Length of section
2	(2)	ADDRESS	1	IT3HTYPE	Type of this section - JES3
3	(3)	ADDRESS	1	IT3HMOD	Modifier - Group System Inf
4	(4)	ADDRESS	2	IT3H3SOS	Offset to 1st system entry
6	(6)	ADDRESS	2	IT3H3SNS	Number of system entries
8	(8)	ADDRESS	2	IT3H3SLS	Length of a system entry
8	(8)	X'A'	0	IT3HSIZE	"*-IT3HDG3S" JES3 Group System Info section length (internal use only)

Table 125. Structure IT3SDISY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IT3SDISY	, JES3 System Information Entry data
0	(0)	CHARACTER	8	IT3SSYSN	System name
8	(8)	SIGNED	4	IT3SDICT	Defined initiator Count
12	(C)	SIGNED	4	IT3SAICT	Allocated initiator Count
16	(10)	SIGNED	4	IT3SUICT	In-use initiator Count
20	(14)	BITSTRING	1	IT3SFLAG	Flags
		1... ....		IT3SMANA	"B'10000000" ON - Manual allocation OFF - Dynamic allocation
		.1.. ....		IT3SMANU	"B'01000000" ON - Manual unallocation OFF - Dynamic unallocation
		..1. ....		IT3SENBS	"B'00100000" ON - Group is enabled for scheduling on this system OFF - Group is disabled for scheduling on this system
21	(15)	BITSTRING	3		Reserved
24	(18)	ADDRESS	4	IT3SJSIE	Ptr to JESplex system information entry (see IAZJPLXI)
24	(18)	X'1C'	0	IT3SSIZE	"*-IT3SDISY" System Information Entry section length (internal use only)

Table 126. Structure IT3JDG3J

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IT3JDG3J	, JES3 Group Jobclass Info data
0	(0)	ADDRESS	2	IT3JLEN	Length of section
2	(2)	ADDRESS	1	IT3JTYPE	Type of this section - JES3
3	(3)	ADDRESS	1	IT3JMOD	Modifier - Group Jobclass Info
4	(4)	ADDRESS	2	IT3JJCOF	Offset to 1st jobclass entry
6	(6)	ADDRESS	2	IT3JJCCT	Number of jobclass entries
8	(8)	ADDRESS	2	IT3JJCLN	Length of a jobclass entry
8	(8)	X'A'	0	IT3JSIZE	"*-IT3JDG3J" JES3 Group Jobclass Info section length (internal use only)

Table 127. Structure IT3CD3JC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IT3CD3JC	, Jobclass Entry data
0	(0)	CHARACTER	8	IT3CJCNM	Jobclass name
8	(8)	BITSTRING	4	IT3CSENB	Bitmap relative to system entries in Group System Information section - if bit is ON, class is enabled on corresponding system
12	(C)	BITSTRING	4	IT3CSDEF	Bitmap relative to system entries in Group System Information section - if bit is ON, class is defined on corresponding system
16	(10)	BITSTRING	4	IT3CSEN2	Bitmap relative to JPSYSIFE system entries (anchored by JPIMPTR), if bit is ON class is enabled on corresponding system
20	(14)	BITSTRING	4	IT3CSDE2	Bitmap relative to JPSYSIFE system entries (anchored by JPIMPTR), if bit is ON class is defined on corresponding system

Table 127. Structure IT3CD3JC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
20	(14)	X'18'	0	IT3CSIZE	"*-IT3CD3JC" Jobclass Entry section length (internal use only)

Table 128. Structure ITIHDIHD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ITIHDHDI	, Initiator Header
0	(0)	CHARACTER	8	ITIHIEYE	Eye catcher
8	(8)	ADDRESS	2	ITIHODHR	Offset to first section
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	ITIHNEXT	Address of next Initiator Header
16	(10)	ADDRESS	4	ITIHSYSI	Address of JPSYSIFE for this initiator (see IAZJPLXI)
16	(10)	X'14'	0	ITIHSIZE	"*-ITIHDHDI" Size of header (internal use only)

## Initiator Section Identifiers

1... ....	ITORTIPR	"X'80'" Initiator Prefix
1... ...1	ITORTIGI	"X'81'" Initiator General Info
1... ..1.	ITORTIJ2	"X'82'" JES2 Initiator Information

## Initiator Section Modifiers

.... ....	ITORTIPM	"X'00'" Initiator Prefix Modifier
.... ....	ITORTIGM	"X'00'" Initiator General Info Mod
.... ....	ITORTI2I	"X'00'" JES2 Initiator Information
.... ...1	ITORTI2J	"X'01'" JES2 Initiator Jobclass Information

Table 129. Structure ITIPDINT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ITIPDINT	, Initiator Prefix Data
0	(0)	ADDRESS	2	ITIPILEN	Length of entire Initiator entry (Max value 65535)
2	(2)	ADDRESS	1	ITIPITYP	Type of this header
3	(3)	ADDRESS	1	ITIPIMOD	Modifier
3	(3)	X'4'	0	ITIPSIZE	"*-ITIPDINT" Initiator Prefix section length

Table 130. Structure ITIGDIGI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ITIGDIGI	, Initiator General Info Data
0	(0)	ADDRESS	2	ITIGIILN	Length of section
2	(2)	ADDRESS	1	ITIGIITY	Type of this header
3	(3)	ADDRESS	1	ITIGIIMD	Modifier
4	(4)	SIGNED	2	ITIGASID	ASID of initiator job
6	(6)	BITSTRING	1	ITIGSTAT	Initiator Status
		1... ....		ITIGIDRI	"B'10000000'" Draining

Table 130. Structure ITIGDIGI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		ITIGIDRD	"B'01000000'" Drained
		..1. ....		ITIGIHLI	"B'00100000'" Halting
		...1 ....		ITIGIHLD	"B'00010000'" Halted
		.... 1...		ITIGIINA	"B'00001000'" Inactive
		.... .1..		ITIGIACT	"B'00000100'" Active
		.... ..1.		ITIGISTR	"B'00000010'" Starting
7	(7)	BITSTRING	1	ITIGOPTS	Initiator options
		1... ....		ITIGAS31	"B'10000000'" ASCBV31 option specified
8	(8)	CHARACTER	8	ITIGMVSN	MVS system name
16	(10)	CHARACTER	8	ITIGSID	JES member name
The following fields are associated with the currently active batch job in the initiator					

24	(18)	CHARACTER	8	ITIGJNAM	Jobname from job card
32	(20)	CHARACTER	8	ITIGJBID	Job ID of batch job
40	(28)	CHARACTER	8	ITIGOWNR	Userid from job card
48	(30)	CHARACTER	8	ITIGSTEP	Job step name
56	(38)	CHARACTER	8	ITIGPRSN	Procedure step name (JES2 only)
64	(40)	CHARACTER	8	ITIGSECL	SECLABEL for address space
72	(48)	CHARACTER	8	ITIGJCLS	Job class
80	(50)	CHARACTER	8	ITIGSCLS	Service class of currently active job, if JES managed. If WLM managed, service class WLM initiator currently running.
88	(58)	BITSTRING	4	ITIGINID	Unique initiator ID
88	(58)	X'5C'	0	ITIGSIZE	"*-ITIGDIGI" Initiator General Information section length (internal use only)

Table 131. Structure IT2IDI2I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IT2IDI2I	, JES2 Initiator Information Data
0	(0)	ADDRESS	2	IT2ILEN	Length of section
2	(2)	ADDRESS	1	IT2ITYPE	Type of this section
3	(3)	ADDRESS	1	IT2IMOD	Modifier
4	(4)	CHARACTER	4	IT2IITID	Initiator partition 'id'
8	(8)	CHARACTER	8	IT2IITJI	Initiator job ID
16	(10)	SIGNED	2	IT2INUMB	Initiator number
18	(12)	BITSTRING	2		Reserved
18	(12)	X'14'	0	IT2ISIZE	"*-IT2IDI2I" JES2 Initiator Information section length (internal use only)

Table 132. Structure IT2JDI2J

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IT2JDI2J	, JES2 Initiator Jobclass Information Data
0	(0)	ADDRESS	2	IT2JLEN	Length of section



Table 132. Structure IT2JDI2J (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	ADDRESS	1	IT2JTYPE	Type of this section
3	(3)	ADDRESS	1	IT2JMOD	Modifier
4	(4)	ADDRESS	2	IT2JJCOS	Offset to 1st jobclass entry
6	(6)	ADDRESS	2	IT2JJCT	Number of jobclass entries
8	(8)	ADDRESS	2	IT2JJCLN	Length of a jobclass entry
8	(8)	X'A'	0	IT2JSIZE	"*-IT2JDI2J" JES2 Initiator Jobclass Information section length (internal use only)

Table 133. Structure IT2CDIJC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IT2CDIJC	, Jobclass Entry data
0	(0)	CHARACTER	8	IT2CJCNM	Jobclass name/group name
8	(8)	BITSTRING	1	IT2CFLAG	Flags
		1... ..		IT2CJCWY	"B'10000000" ON - Yes, jobclass is WLM eligible OFF - No, not eligible
		.1... ..		IT2CJGRP	"B'01000000" ON - IT2CJCNM is a job class group name OFF - IT2CJCNM is a job class
8	(8)	X'9'	0	IT2CSIZE	"*-IT2CDIJC" Jobclass Entry section length (internal use only)

Table 134. Structure ITSMHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ITSMHDR	, System information header
0	(0)	CHARACTER	8	ITSMEYE	Eye-catcher
8	(8)	ADDRESS	2	ITSMOHR	Offset to prefix section
10	(A)	BITSTRING	2		Reserved
12	(C)	ADDRESS	4	ITSMNEXT	Address of next header
12	(C)	X'10'	0	ITSM SIZE	"*-ITSMHDR" Header size (internal use only)

Table 135. Structure ITORSTOR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ITORSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	ITORSTID	Full eyecatcher
8	(8)	ADDRESS	2	ITORSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	ITORSTSP	Subpool of area
12	(C)	X'E6'	0	ITORSTPL	"230" Recommended subpool use
13	(D)	ADDRESS	3	ITORSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	ITORSTNX	Pointer to next area
20	(14)	ADDRESS	4	ITORSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	ITORSTBG(0)	Start of data area

Table 136. Cross Reference for IAZJPITD

Name	Offset	Hex Tag
ITGGDGGI	0	
ITGGFLAG	C	
ITGGGNAM	4	
ITGGLEN	0	10
ITGGMOD	3	
ITGGSIZE	D	10
ITGGTYPE	2	
ITGGWLM	C	80
ITGHDHDR	0	
ITGHDHSZ	14	18
ITGHEYE	0	C4C9D5C9
ITGHINIT	10	
ITGHNEXT	C	
ITGHNINT	14	
ITGHOHDR	8	18
ITGPDGRP	0	
ITGPGLN	0	
ITGPGMOD	3	
ITGPGTYP	2	
ITGPSIZE	3	4
ITIGASID	4	
ITIGAS31	7	80
ITIGDIGI	0	
ITIGIACT	6	4
ITIGIDRD	6	40
ITIGIDRI	6	80
ITIGIHLD	6	10
ITIGIHLI	6	20
ITIGIILN	0	5C
ITIGIIMD	3	
ITIGIINA	6	8
ITIGIITY	2	
ITIGINID	58	0
ITIGISTR	6	2
ITIGJBID	20	40404040
ITIGJCLS	48	40404040
ITIGJNAM	18	40404040
ITIGMVS	8	40404040
ITIGOPTS	7	

Table 136. Cross Reference for IAZJPITD (continued)

Name	Offset	Hex Tag
ITIGOWNR	28	40404040
ITIGPRSN	38	40404040
ITIGSCLS	50	40404040
ITIGSECL	40	40404040
ITIGSID	10	40404040
ITIGSIZE	58	5C
ITIGSTAT	6	
ITIGSTEP	30	40404040
ITIHDIHD	0	
ITIHIEYE	0	C4C9D5C9
ITIHNEXT	C	
ITIHODR	8	14
ITIHSIZE	10	14
ITIHSYSI	10	
ITIPDINT	0	
ITIPILEN	0	0
ITIPIMOD	3	
ITIPITYP	2	
ITIPSIZE	3	4
ITORSTBG	18	
ITORSTCP	14	
ITORSTHL	8	
ITORSTID	0	C9E3D6D9
ITORSTNX	10	
ITORSTOR	0	
ITORSTPL	C	E6
ITORSTSP	C	
ITORSTTL	D	
ITORTGGI	14	1
ITORTGGM	14	0
ITORTGJ3	14	3
ITORTGPM	14	0
ITORTGPR	14	0
ITORTG3I	14	0
ITORTG3J	14	2
ITORTG3S	14	1
ITORTIGI	10	81
ITORTIGM	10	0
ITORTIJ2	10	82

Table 136. Cross Reference for IAZJPITD (continued)

Name	Offset	Hex Tag
ITORTIPM	10	0
ITORTIPR	10	80
ITORTI2I	10	0
ITORTI2J	10	1
ITSMEYE	0	D1D7C9E3
ITSMHDR	0	
ITSMNEXT	C	
ITSMOHR	8	10
ITSM SIZE	C	10
IT2CDIJC	0	
IT2CFLAG	8	
IT2CJCNM	0	40404040
IT2CJCWY	8	80
IT2CJGRP	8	40
IT2CSIZE	8	9
IT2IDI2I	0	
IT2IITID	4	40404040
IT2IITJI	8	40404040
IT2ILEN	0	14
IT2IMOD	3	
IT2INUMB	10	0
IT2ISIZE	12	14
IT2ITYPE	2	
IT2JDI2J	0	
IT2JJCCT	6	
IT2JJCLN	8	
IT2JJCOS	4	
IT2JLEN	0	0
IT2JMOD	3	
IT2JSIZE	8	A
IT2JTYPE	2	
IT3CD3JC	0	
IT3CJCNM	0	40404040
IT3CSDEF	C	
IT3CSDE2	14	
IT3CSENB	8	
IT3CSEN2	10	
IT3CSIZE	14	18
IT3GDEFG	8	80

Table 136. Cross Reference for IAZJPITD (continued)

Name	Offset	Hex Tag
IT3GDG3I	0	
IT3GFLAG	8	
IT3GLEN	0	C
IT3GMOD	3	
IT3GSIZE	9	C
IT3GTYPE	2	
IT3G3IBR	4	
IT3HDG3S	0	
IT3HLEN	0	A
IT3HMOD	3	
IT3HSIZE	8	A
IT3HTYPE	2	
IT3H3SLS	8	
IT3H3SNS	6	
IT3H3SOS	4	
IT3JDG3J	0	
IT3JJCCT	6	
IT3JJCLN	8	
IT3JJCOF	4	
IT3JLEN	0	A
IT3JMOD	3	
IT3JSIZE	8	A
IT3JTYPE	2	
IT3SAICT	C	
IT3SDICT	8	
IT3SDISY	0	
IT3SENBS	14	20
IT3SFLAG	14	
IT3SJSIE	18	
IT3SMANA	14	80
IT3SMANU	14	40
IT3SSIZE	18	1C
IT3SSYSN	0	40404040
IT3SUICT	10	
JPITCVRL	B	2
JPITCVRM	B	0
JPITD	0	
JPITDPTR	68	
JPITFLG1	14	

Table 136. Cross Reference for IAZJPITD (continued)

Name	Offset	Hex Tag
JPITGNAM	18	
JPITLEN	8	
JPITMNAM	28	
JPITMNUM	9C	
JPITMPTR	98	
JPITNIG	6C	
JPITOVR#	C	200
JPITOVR1	C	100
JPITOVR2	C	200
JPITSACT	38	4
JPITSCLS	30	
JPITSDRD	38	40
JPITSDRI	38	80
JPITSHLD	38	10
JPITSHLI	38	20
JPITSINA	38	8
JPITSNAM	20	
JPITSSID	0	
JPITSSTR	38	2
JPITSTAT	38	
JPITSTRP	10	
JPITSVER	A	
JPITSVR#	B	200
JPITSVRL	A	
JPITSVRM	B	
JPITSVR1	B	100
JPITSVR2	B	200
JPITSZE	A0	A0
JPITSZE1	98	98
JPITSZE2	A0	A0
JPITUSER	10	
JPITVER0	C	0
JPITV2	98	
JPIT1CLS	14	10
JPIT1CLW	14	8
JPIT1DOM	14	4
JPIT1GRP	14	80
JPIT1JES	14	2
JPIT1NAM	14	20

Table 136. Cross Reference for IAZJPITD (continued)

Name	Offset	Hex Tag
JPIT1NAS	14	40
JPIT1WLM	14	1

## IAZJPLEX information

### IAZJPLEX programming interface information

The following fields are **NOT** programming interface information:

- JPLXSTBG
- JPLXSTCP
- JPLXSTHL
- JPLXSTNX
- JPLXSTOR
- JPLXSTPL
- JPLXSTRP
- JPLXSTSP
- JPLXSTTL
- JPLXSZE1
- JPLXUSER
- JPXGENSZ
- JPXHDSZ
- JPX2SIZ
- JPX3SZ

### IAZJPLEX heading information

**Common name:** JESplex Information Parameter List for SSI 82.

**Macro ID:** IAZJPLEX

**DSECT name:** JPLEX

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** JESPLEXI  
Offset: JPLXID  
Length: L'JPLXID

**Storage attributes:** Subpool: Parameter List = Subpool of Caller  
Output Data = Subpool 230  
Key: Parameter List = Key of Caller  
Output Data = Key 1  
Residency: Virtual = 31 bit private storage  
real = 64 bit storage

**Size:** See JPLXSZE

**Created by:** caller of SSI function 'SSOBSSJP' = 82

**Pointed to by:** SSJPUSE in the SSOB extension

**Serialization:** None

**Function:** This macro provides the mapping of the parameter list used by programs to request JESplex Data from the JES subsystem.

## IAZJPLEX mapping

Table 137. Structure JPLEX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPLEX	
0	(0)	CHARACTER	8	JPLXID	I.Eye catcher
8	(8)	ADDRESS	2	JPLXLEN	I.Length of JPLEX parameter
<p>There are two 2 byte versions for this SS0B extension. JPLXVER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JPLXVER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JPLXVER0 may be higher than JPLXVER. In this case, only the fields valid at the JPLXVER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JPLXVER(0)	I.SS0B version
10	(A)	ADDRESS	1	JPLXVERL	I.SS0B version level
11	(B)	ADDRESS	1	JPLXVERM	I.SS0B version modifier
11	(B)	BITSTRING	0	JPLXV010	"X'0100'" Initial version number of IAZJPLEX.
11	(B)	BITSTRING	0	JPLXV011	"X'0101'" Active volume info
11	(B)	BITSTRING	0	JPLXV020	"X'0200'" z/OS 1.13 version
11	(B)	BITSTRING	0	JPLXSVR#	"X'0200'" Service version number of IAZJPLEX - Latest Version
11	(B)	X'2'	0	JPLXCVRL	"2" Current version level
11	(B)	X'0'	0	JPLXCVRM	"0" Current version modifier
12	(C)	SIGNED	2	JPLXVER0	0.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved.
16	(10)	SIGNED	4	JPLXUSER(0)	Placeholder. Do not use.
<p>JPLXSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SS0B extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JPLXSTRP	Storage management anchor.
<p>Begin input-only fields.</p> <p>NOTES: - Many of the filters only apply to JES2 or JES3. Each filter is denoted with what applies.</p>					
20	(14)	BITSTRING	1	JPLXFLTR	IS.Indicate desired filters
		1... ....		JPLXFSNM	"X'80'" Filter on System Name
		.1.. ....		JPLXFMNM	"X'40'" Filter on Member Name



Table 137. Structure JPLEX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
21	(15)	BITSTRING	3		Reserved
24	(18)	BITSTRING	1	JPLXSTS1	Composite Status
		1... ....		JPLDRAIN	"X'80'" Drained. (For Jes3 - it is a Down main)
		.1.. ....		JPLINITZ	"X'40'" Initializing (JES2 Only)
		..1. ....		JPLXACTV	"X'20'" Active member
		...1 ....		JPLDRING	"X'10'" Draining Member (JES2 Only)
		.... 1...		JPLOUDEF	"X'08'" Omit Undefined Members (JES2 Only)
		.... .1..		JPLNATCH	"X'04'" Not Attached (JES3 Only)
25	(19)	BITSTRING	1	JPLXSPEC	IS.JES specific filters
		1... ....		JPLXINDP	"B'10000000'" Member is independent (JES2 Only)
		.1.. ....		JPLXBOSS	"B'01000000'" Member is BOSS (JES2 only)
		..1. ....		JPLXPRIM	"B'00100000'" Member is primary subsystem (JES2 only)
		...1 ....		JPLXGLOB	"B'00010000'" Global (J3 Only)
		.... 1...		JPLXLOCL	"B'00001000'" Local (J3 Only)
26	(1A)	BITSTRING	3		Reserved
NOTE: Each filter below is enabled via one of the bit settings above.					
29	(1D)	CHARACTER	8	JPLXSNAM	IS*.MVS System Name filter See JPLXFSNM bit
37	(25)	CHARACTER	8	JPLXMNAM	IS*.Member Name filter See JPLXFMNM bit
45	(2D)	BITSTRING	3		Reserved
48	(30)	SIGNED	4	(10)	Reserved for future use
Begin output-only fields.					
88	(58)	ADDRESS	4	JPLXLPTR	0.Pointer to first Member (JPXHDR) data buffer.
92	(5C)	SIGNED	4	JPLXNMBR	0.Number of Member (JPXHDR) data buffers returned.
96	(60)	SIGNED	8	JPLXTRKT	0.Total Spool Tracks Defined
104	(68)	SIGNED	8	JPLXTRKU	0.Spool Tracks used.
112	(70)	SIGNED	8	JPLXTRAT	0.Total Active Spool Tracks Defined
120	(78)	SIGNED	8	JPLXTRAU	0.Active Spool Tracks used.
128	(80)	CHARACTER	8	JPLXXGNM	0.XCF Group name
136	(88)	BITSTRING	1	JPLXOPT1	0.JESPLEX options:
		1... ....		JPLX1ADJ	"B'10000000'" CYCLEMG= AUTO (JES2 only)
		.1.. ....		JPLX1ADV	"B'01000000'" Advanced format has been activated at least once in the MAS - advanced format structures may exist on SPOOL
		..1. ....		JPLX1ADE	"B'00100000'" Advanced format is currently enabled in the MAS
137	(89)	BITSTRING	3		Reserved
140	(8C)	CHARACTER	8	JPLXCKLV	0.JES2 checkpoint level (\$ACTIVATE level)

Table 137. Structure JPLEX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
148	(94)	BITSTRING	4		Reserved for future use
148	(94)	X'98'	0	JPLXSZE1	"*-JPLEX" Fix parameter End: Ver 1
148	(94)	X'98'	0	JPLXSZE2	"*-JPLEX" Fix parameter End: Ver 2
148	(94)	X'98'	0	JPLXSZE	"*-JPLEX" JPLX Current version fixed parameter length

Table 138. Structure JPLXSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPLXSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JPLXSTID	Eyecatcher
8	(8)	ADDRESS	2	JPLXSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JPLXSTSP	Subpool of area
12	(C)	X'E6'	0	JPLXSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JPLXSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JPLXSTNX	Pointer to next area
20	(14)	ADDRESS	4	JPLXSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JPLXSTBG(0)	Start of data area
24	(18)	X'18'	0	JPLXSTSZ	"(JPLXSTBG-JPLXSTOR)" JPLXSTOR length

Table 139. Structure JPXHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPXHDR	, JESplex Header Section
0	(0)	CHARACTER	8	JPXEYE	Eye catcher
8	(8)	ADDRESS	2	JPXOPRF	Offset to prefix section
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	ADDRESS	4	JPXNXTP	Address of next JESplex
16	(10)	ADDRESS	4		Reserved for future use
16	(10)	X'14'	0	JPXHDSZ	"*-JPXHDR" Size of this section (Internal use only)

## JESplex Section Identifiers

.... ....	JPXIDPRF	"X'00'" JESplex Info - Prefix
.... ..1	JPXIDGEN	"X'01'" JESplex Info - General
.... ..1.	JPXIDJS2	"X'02'" JESplex Info - JES2
.... ..11	JPXIDJS3	"X'03'" JESplex Info - JES3
.... ..1..	JPXIDPFX	"X'04'" JESplex Info - Cmd Prefix

## JESplex Section Modifiers

.... ....	JPXIMGEN	"X'00'" Modifier - General
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Table 140. Structure JPXPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPXPREF	, JESplex Prefix

Table 140. Structure JPXPREF (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	ADDRESS	2	JPXPRLN	Length of entire JESplex entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	JPXPRTPT	Type = Prefix Section
3	(3)	ADDRESS	1	JPXPRMD	Type Mod = General
3	(3)	X'4'	0	JPXPRSZ	"*-JPXPREF" Size of this section

Table 141. Structure JPXGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPXGENI	, JESplex General Information.
0	(0)	ADDRESS	2	JPXGLN	Length of this section
2	(2)	ADDRESS	1	JPXGTY	Type = General Info
3	(3)	ADDRESS	1	JPXGMD	Type Mod = General
4	(4)	CHARACTER	4	JPXSBSNM	Subsystem name
8	(8)	DBL WORD	8	JPXSTIME	Date/Time of last start STCK format
16	(10)	BITSTRING	1	JPXSTAT1	Member status
16	(10)	X'0'	0	JPXUNDEF	"0" Not defined
16	(10)	X'1'	0	JPXDRAIN	"1" Drained Member
16	(10)	X'2'	0	JPXINITZ	"2" Initializing (J2 Only)
16	(10)	X'3'	0	JPXACTIV	"3" Active member
16	(10)	X'4'	0	JPXDRING	"4" Draining Member (J2 Only)
16	(10)	X'5'	0	JPXNATCH	"5" Not Attached (J3 Only)
17	(11)	CHARACTER	32	JPXSTATC	Current Status (character string)
49	(31)	CHARACTER	8	JPXMVSNM	MVS system name
57	(39)	CHARACTER	8	JPXMEMNM	JES Member Name
65	(41)	CHARACTER	8	JPXVERSN	Version of Product (character)
73	(49)	CHARACTER	8	JPXSMFID	SMF ID
81	(51)	BITSTRING	1	JPXSYSLG	Syslog Indicator
	1... ....			JPXSLOGY	"X'80'" Release 11 syslog support is active for this member
82	(52)	SIGNED	2	JPXMEMNO	JES Member Number
84	(54)	SIGNED	1	JPXSTYPE	Type of last start
84	(54)	X'A'	0	JPXCOLD	"10" COLD START
84	(54)	X'B'	0	JPX2COLF	"11" COLD START with format
84	(54)	X'14'	0	JPXWARM	"20" WARM START
84	(54)	X'15'	0	JPX2SRMS	"21" SINGLE MEMBER WARM START
84	(54)	X'19'	0	JPX3WRMD	"25" JES3 WARM START TO REPLACE A SPOOL DATASET
84	(54)	X'1A'	0	JPX3WRMA	"26" JES3 WARM START WITH ANALYSIS
84	(54)	X'1B'	0	JPX3WDA	"27" JES3 WARM START TO REPLACE A SPOOL DATASET WITH ANALYSIS.
84	(54)	X'1E'	0	JPXHOT	"30" HOT START
84	(54)	X'23'	0	JPX3HOTR	"35" JES3 HOT START WITH REFRESH.
84	(54)	X'24'	0	JPX3HOTA	"36" JES3 HOT START WITH ANALYSIS
84	(54)	X'25'	0	JPX3HTRA	"37" JES3 HOT START WITH REFRESH AND ANALYSIS
84	(54)	X'28'	0	JPX2QUIK	"40" QUICK START

Table 141. Structure JPXGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
84	(54)	X'32'	0	JPX3LCL	"50" JES3 LOCAL START
85	(55)	BITSTRING	1	JPXPRODL	Product Level (binary)
86	(56)	BITSTRING	1	JPXSERVL	Service Level
87	(57)	BITSTRING	1		Reserved for future use
88	(58)	SIGNED	4	JPXTMOF	UTC offset of the member in seconds (including leap seconds)
92	(5C)	CHARACTER	4	JPXEMGNM	Emergency subsystem name
92	(5C)	X'60'	0	JPXGENSZ	"*-JPXGENI" Size of this section (Internal use only)

Table 142. Structure JPXJES3I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPXJES3I	, JESplex JES3-specific information
0	(0)	ADDRESS	2	JPX3LN	Section length
2	(2)	ADDRESS	1	JPX3TY	Type = JES3 Info
3	(3)	ADDRESS	1	JPX3MD	Type Mod = General
4	(4)	SIGNED	4		Reserved for future use
8	(8)	DBL WORD	8	JPX3GCON	Last global contact time
16	(10)	SIGNED	2	JPX3TRK1	Primary track group allocation
18	(12)	SIGNED	2	JPX3TRK2	Secondary track group allocation
20	(14)	SIGNED	2	JPX3WTOL	WTO message limit
22	(16)	SIGNED	2	JPX3WTOI	WTO message interval (seconds)
24	(18)	SIGNED	2	JPX3CSA	PBUF CSA limit
26	(1A)	SIGNED	2	JPX3AUX	PBUF JES3AUX limit
28	(1C)	SIGNED	2	JPX3FIX	Fixed PBUFS
30	(1E)	SIGNED	2	JPX3USR	User pages per open SYSOUT dataset
32	(20)	CHARACTER	8	JPX3SELM	Selection mode name
40	(28)	CHARACTER	8	JPX3SPL	Spool partition name
48	(30)	CHARACTER	11	JPX3MPFX	Message prefix
59	(3B)	CHARACTER	3	JPX3MDST	Message destination (M1-M32 or 1-28, 41-128)
62	(3E)	BITSTRING	1	JPX3FLG1	Flag byte
		1... ....		JPX3GBL	"B'10000000'" Global node
		.1.. ....		JPX3ONL	"B'01000000'" Online
		..1. ....		JPX3FLSH	"B'00100000'" Flushed
		...1 ....		JPX3CNN	"B'00010000'" Connected
62	(3E)	X'30'	0	JPX3NCNN	"JPX3FLSH+JPX3CNN" Not connected
		.... 1...		JPX3DOWN	"B'00001000'" Down
		.... .1..		JPX3ATT	"B'00000100'" Attached
62	(3E)	X'C'	0	JPX3NATT	"JPX3DOWN+JPX3ATT" Not attached
63	(3F)	BITSTRING	1		Reserved
63	(3F)	X'40'	0	JPX3SZ	"*-JPXJES3I" Size of this section (Internal use only)

Table 143. Structure JPXJES2I

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPXJES2I	, JESplex JES2 specific Information
0	(0)	ADDRESS	2	JPX2LN	Length of this section
2	(2)	ADDRESS	1	JPX2TY	Type = JES2 Info
3	(3)	ADDRESS	1	JPX2MD	Type Mod = General
4	(4)	BITSTRING	1	JPX2FLG1	JES2 Indicators
		1... ....		JPX21IND	"B'10000000'" Independent Mode
		.1.. ....		JPX21BOS	"B'01000000'" BOSS Indicator
		..1. ....		JPX21PRI	"B'00100000'" Primary subsystem Indicator
5	(5)	CHARACTER	3		padding for alignment
8	(8)	DBL WORD	8	JPX2ITIM	Time last accessed checkpoint
16	(10)	BITSTRING	1	JPX2FLG2	Current command being processed
		..1. ....		JPX21P	"B'00100000'" \$P command
		...1 ....		JPX21PXQ	"B'00010000'" \$PXEQ Command
		.... 1...		JPX22PCN	"B'00001000'" \$PCNVT Command
17	(11)	BITSTRING	3		Reserved
20	(14)	SIGNED	4	JPX2HOLD	Current setting MASDEF HOLD
24	(18)	SIGNED	4	JPX2MIND	Current setting MASDEF MIN DORMANCY
28	(1C)	SIGNED	4	JPX2MAXD	Current setting MASDEF MAX DORMANCY
32	(20)	SIGNED	4	JPX2SYNC	Current setting MASDEF SYNCTOL
36	(24)	SIGNED	4	JPX2AHLN	Actual HOLD last checkpoint
40	(28)	SIGNED	4	JPX2ADRM	Actual DORMANCY last checkpoint
44	(2C)	CHARACTER	8	JPX2RSID	Name of member doing reset (reset by member - \$MEMBER)
52	(34)	SIGNED	1	JPX2STAT	Specific status indicator
		1... ....		JPX2DOWN	"B'10000000'" Down
		.1.. ....		JPX2DEF	"B'01000000'" DEFINED filter
		..1. ....		JPX2INU	"B'00100000'" INUSE
		...1 ....		JPX2FAIL	"B'00010000'" FAILED
		.... ...1		JPX2UNDF	"X'01'" Member UNDEFINED
		.... ..1.		JPX2UPND	"X'02'" Member UNDEFINED-PENDING
52	(34)	X'63'	0	JPX2ACTV	"JPX2DEF+JPX2INU+X'03'" Member ACTIVE
52	(34)	X'C4'	0	JPX2INAC	"JPX2DEF+JPX2DOWN+X'04'" Member TERMINATED
52	(34)	X'65'	0	JPX2INIT	"JPX2DEF+JPX2INU+X'05'" Member INITIALIZING
52	(34)	X'66'	0	JPX2TERM	"JPX2DEF+JPX2INU+X'06'" Member TERMINATING
52	(34)	X'D7'	0	JPX2JESF	"JPX2DEF+JPX2DOWN+JPX2FAIL+X'07'" Memb JES2-FAILED
52	(34)	X'D8'	0	JPX2XCFF	"JPX2DEF+JPX2DOWN+JPX2FAIL+X'08'" Memb JESXCF-FAILED
52	(34)	X'D9'	0	JPX2MVSG	"JPX2DEF+JPX2DOWN+JPX2FAIL+X'09'" Memb MVS-GONE
52	(34)	X'6A'	0	JPX2DORM	"JPX2DEF+JPX2INU+X'0A'" Member DORMANT (Never set)
52	(34)	X'CB'	0	JPX2DRAN	"JPX2DEF+JPX2DOWN+X'0B'" Member DRAINED
52	(34)	X'DC'	0	JPX2ALIC	"JPX2DEF+JPX2DOWN+JPX2FAIL+X'0C'" Member awaiting ALICE processing

Table 143. Structure JPXJES2I (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
53	(35)	BITSTRING	1	JPX2STA2	2nd status byte
		1... ....		JPX2EDEL	"B'10000000" Member deleted
		.1.. ....		JPX2\$IND	"B'01000000" Member in independent mode
		..1. ....		JPX2SIOT	"B'00100000" SPIN IOT being purged
		...1 ....		JPX2NMAL	"B'00010000" Member has two checkpoint datasets allocated
		.... 1...		JPX2EGON	"B'00001000" XCF system gone
		.... ..1.		JPX2PRIM	"B'00000010" Member is a primary subsystem
		.... ...1		JPX2SPLX	"B'00000001" Command Prefix has SYSplex scope
54	(36)	BITSTRING	1	JPX2STA3	3rd status byte
		1... ....		JPX2TRCK	"B'10000000" A TRACK exists for member
		.1.. ....		JPX2ALRT	"B'01000000" An ALERT exists for member
		..1. ....		JPX2NTCE	"B'00100000" A NOTICE exists for member
		...1 ....		JPX2CRIT	"B'00010000" at least 1 is critical
55	(37)	BITSTRING	1		Reserved for future use
55	(37)	X'38'	0	JPX2SIZ	"*-JPXJES2I" Size of this section (Internal use only)

Table 144. Structure JPXCPREF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPXCPREF	, JESplex command prefix information.
0	(0)	ADDRESS	2	JPXCLN	Length of this section
2	(2)	ADDRESS	1	JPXCTY	Type = Command Prefix
3	(3)	ADDRESS	1	JPXCMD	Type Mod = General
4	(4)	SIGNED	2	JPXPFXC	Command prefix count
6	(6)	ADDRESS	2	JPXPFXL	Command prefix entry length
8	(8)	ADDRESS	2	JPXPFXO	Offset to first entry
10	(A)	BITSTRING	2		Reserved
10	(A)	X'C'	0	JPXCSIZ	"*-JPXCPREF" Size of this fixed portion of this section (Internal use only)
12	(C)	BITSTRING	1	JPXCARAY(0)	Start of variable length portion of section

Table 145. Structure JPXCPRFE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPXCPRFE	, Element of prefix array
0	(0)	BITSTRING	1	JPXCPFXS	Scope flags
		1... ....		JPXC\$YSP	"X'80" SYSplex scope
		.1.. ....		JPXC\$YST	"X'40" System scope
1	(1)	CHARACTER	8	JPXCPFXP	Command prefix
1	(1)	X'9'	0	JPXCPSZ	"*-JPXCPRFE" Length of an array element

Table 146. Cross Reference for IAZJPLEX

Name	Offset	Hex Tag
JPLDRAIN	18	80
JPLDRING	18	10
JPLEX	0	
JPLINITZ	18	40
JPLNATCH	18	4
JPLOUDEF	18	8
JPLXACTV	18	20
JPLXBOSS	19	40
JPLXCKLV	8C	
JPLXCVRL	B	2
JPLXCVRM	B	0
JPLXFLTR	14	0
JPLXFMNM	14	40
JPLXFSNM	14	80
JPLXGLOB	19	10
JPLXID	0	
JPLXINDP	19	80
JPLXLEN	8	
JPLXLOCL	19	8
JPLXLPTR	58	
JPLXMNAM	25	40404040
JPLXNMBR	5C	0
JPLXOPT1	88	0
JPLXPRIM	19	20
JPLXSNAM	1D	40404040
JPLXSPEC	19	0
JPLXSTBG	18	
JPLXSTCP	14	
JPLXSTHL	8	
JPLXSTID	0	D1D7D3E7
JPLXSTNX	10	
JPLXSTOR	0	
JPLXSTPL	C	E6
JPLXSTRP	10	
JPLXSTSP	C	0
JPLXSTSZ	18	18
JPLXSTS1	18	
JPLXSTTL	D	
JPLXSVR#	B	200

Table 146. Cross Reference for IAZJPLEX (continued)

Name	Offset	Hex Tag
JPLXSIZE	94	98
JPLXSIZE1	94	98
JPLXSIZE2	94	98
JPLXTRAT	70	0
JPLXTRAU	78	0
JPLXTRKT	60	0
JPLXTRKU	68	0
JPLXUSER	10	
JPLXVER	A	
JPLXVERL	A	
JPLXVERM	B	
JPLXVERO	C	0
JPLXV010	B	100
JPLXV011	B	101
JPLXV020	B	200
JPLXXGNM	80	40404040
JPLX1ADE	88	20
JPLX1ADJ	88	80
JPLX1ADV	88	40
JPXACTIV	10	3
JPXCARAY	C	
JPXCLN	0	0
JPXCMD	3	
JPXCOLD	54	A
JPXCPFSZ	1	9
JPXCPFXP	1	40404040
JPXCPFXS	0	0
JPXCPREF	0	
JPXCPRFE	0	
JPXCSTZ	A	C
JPXCSYSP	0	80
JPXCSYST	0	40
JPXCTY	2	
JPXDRAIN	10	1
JPXDRING	10	4
JPXEMGNM	5C	40404040
JPXEYE	0	D1D7E7C8
JPXGENI	0	
JPXGENSZ	5C	60



Table 146. Cross Reference for IAZJPLEX (continued)

Name	Offset	Hex Tag
JPXGLN	0	60
JPXGMD	3	
JPXGTY	2	
JPXHDR	0	
JPXHDSZ	10	14
JPXH0T	54	1E
JPXIDGEN	10	1
JPXIDJS2	10	2
JPXIDJS3	10	3
JPXIDPFX	10	4
JPXIDPRF	10	0
JPXIMGEN	10	0
JPXINITZ	10	2
JPXJES2I	0	
JPXJES3I	0	
JPXMEMNM	39	40404040
JPXMEMNO	52	0
JPXMVSNM	31	40404040
JPXNATCH	10	5
JPXNXTP	C	
JPX0PRF	8	14
JPXPFXC	4	0
JPXPFXL	6	
JPXPFX0	8	
JPXPREF	0	
JPXPRLN	0	
JPXPRMD	3	
JPXPRODL	55	0
JPXPRSZ	3	4
JPXP RTP	2	
JPXSBSNM	4	40404040
JPXSERVL	56	0
JPXSLOGY	51	80
JPXSMFID	49	40404040
JPXSTATC	11	40404040
JPXSTAT1	10	0
JPXSTIME	8	0
JPXSTYPE	54	0
JPXSYSLG	51	

Table 146. Cross Reference for IAZJPLEX (continued)

Name	Offset	Hex Tag
JPXTMOF	58	
JPXUNDEF	10	0
JPXVERSN	41	40404040
JPXWARM	54	14
JPX2\$IND	35	40
JPX2ACTV	34	63
JPX2ADRM	28	0
JPX2AHLA	24	0
JPX2ALIC	34	DC
JPX2ALRT	36	40
JPX2COLF	54	B
JPX2CRIT	36	10
JPX2DEF	34	40
JPX2DORM	34	6A
JPX2DOWN	34	80
JPX2DRAN	34	CB
JPX2EDEL	35	80
JPX2EGON	35	8
JPX2FAIL	34	10
JPX2FLG1	4	0
JPX2FLG2	10	0
JPX2HOLD	14	0
JPX2INAC	34	C4
JPX2INIT	34	65
JPX2INU	34	20
JPX2ITIM	8	0
JPX2JESF	34	D7
JPX2LN	0	38
JPX2MAXD	1C	0
JPX2MD	3	
JPX2MIND	18	0
JPX2MVSG	34	D9
JPX2NMAL	35	10
JPX2NTCE	36	20
JPX2PRIM	35	2
JPX2QUIK	54	28
JPX2RSID	2C	40404040
JPX2SIOT	35	20
JPX2SIZ	37	38

Table 146. Cross Reference for IAZJPLEX (continued)

Name	Offset	Hex Tag
JPX2SPLX	35	1
JPX2SRMS	54	15
JPX2STAT	34	0
JPX2STA2	35	0
JPX2STA3	36	0
JPX2SYNC	20	0
JPX2TERM	34	66
JPX2TRCK	36	80
JPX2TY	2	
JPX2UNDF	34	1
JPX2UPND	34	2
JPX2XCFF	34	D8
JPX21BOS	4	40
JPX21IND	4	80
JPX21P	10	20
JPX21PRI	4	20
JPX21PXQ	10	10
JPX22PCN	10	8
JPX3ATT	3E	4
JPX3AUX	1A	0
JPX3CNN	3E	10
JPX3CSA	18	0
JPX3DOWN	3E	8
JPX3FIX	1C	0
JPX3FLG1	3E	0
JPX3FLSH	3E	20
JPX3GBL	3E	80
JPX3GCON	8	0
JPX3HOTA	54	24
JPX3HOTR	54	23
JPX3HTRA	54	25
JPX3LCL	54	32
JPX3LN	0	40
JPX3MD	3	
JPX3MDST	3B	404040
JPX3MPFX	30	40404040
JPX3NATT	3E	C
JPX3NCNN	3E	30
JPX3ONL	3E	40

Table 146. Cross Reference for IAZJPLEX (continued)

Name	Offset	Hex Tag
JPX3SELM	20	40404040
JPX3SPL	28	40404040
JPX3SZ	3F	40
JPX3TRK1	10	0
JPX3TRK2	12	0
JPX3TY	2	
JPX3USR	1E	0
JPX3WDA	54	1B
JPX3WRMA	54	1A
JPX3WRMD	54	19
JPX3WT0I	16	0
JPX3WT0L	14	0

## IAZJPLXI information

### IAZJPLXI programming interface information

The following fields are **NOT** programming interface information:

- JPSYSESZ
- JPSYSIZE
- JPSYVERD

### IAZJPLXI heading information

<b>Common name:</b>	System information section returned by a number of SSIs which have a JESplex-scope.
<b>Macro ID:</b>	IAZJPLXI
<b>DSECT name:</b>	JPSYSPRF - DSECT for a prefix section JPSYSINF - DSECT for system information section JPSYSIFE - DSECT for a system entry in a system information section
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	The eye-catcher for this section is provided by the higher-level data structure created by an SSI which returns this section. See documentation for a specific SSI. Offset: N/A Length: N/A
<b>Storage attributes:</b>	Subpool: Storage for system information section is allocated by an SSI which returns this section. See documentation for a specific SSI. Key: See above. Residency: See above.
<b>Size:</b>	See below for sizes of individual DSECTs

- Created by:** System information section is created by an SSI which returns this section.
- Pointed to by:** See documentation for specific SSI.
- Serialization:** None required
- Function:** This macro provides the mapping of the system information section returned by the SSIs which have JESplex scope. The purpose of this section is to report basic information about systems (MAS members for JES2) which were processed to obtain data for a particular SSI call.  
 SSIs which return this section, include:  
 - NJE node information SSI (subfunction of SSI 82)  
 - initiator information SSI (subfunction of SSI 82)  
 - device information SSI (SSI 83)

## IAZJPLXI mapping

Table 147. Structure JPSYSPRF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPSYSPRF	, Prefix section
0	(0)	ADDRESS	2	JPSYXLNG	Total length of all sections for this header (header itself is not included)
2	(2)	ADDRESS	1	JPSYXTYP	Section type
3	(3)	ADDRESS	1	JPSYXMOD	Section type modifier
3	(3)	X'4'	0	JPSYXSIZ	"*-JPSYSPRF" Prefix section size

Table 148. Structure JPSYSINF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPSYSINF	, System information section
0	(0)	ADDRESS	2	JPSYXLNG	Length of this section, including all system entries
2	(2)	ADDRESS	1	JPSYTYPE	Section type
3	(3)	ADDRESS	1	JPSYXMOD	Section type modifier
4	(4)	ADDRESS	2	JPSYOENT	Offset to first entry
6	(6)	ADDRESS	2	JPSYNENT	Number of entries
8	(8)	ADDRESS	2	JPSYSENT	Size of each entry
10	(A)	BITSTRING	2		Reserved
10	(A)	X'C'	0	JPSYSIZE	"*-JPSYSINF" Size of system information section (internal use only)

Table 149. Structure JPSYSIFE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPSYSIFE	, System information entry
0	(0)	CHARACTER	8	JPSYSYSN	MVS system name
8	(8)	CHARACTER	8	JPSYMBRN	JES2 MAS member name
16	(10)	CHARACTER	4	JPSYSUBS	JES subsystem name
20	(14)	ADDRESS	1	JPSYCMCL	JES command prefix length
21	(15)	CHARACTER	8	JPSYCMCH	JES command prefix

Table 149. Structure JPSYSIFE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
29	(1D)	CHARACTER	8	JPSYVERN	Version of JES
37	(25)	BITSTRING	1	JPSYFLAG	Processing flags:
		1... ....		JPSYFPRC	"B'10000000'" data processed for this system (JES2)
		.1... ....		JPSYFNDD	"B'01000000'" no data returned for this system because no data was available or no data matched the filters(JES2)
		..1. ....		JPSYFSUP	"B'00100000'" no data returned for this system - not supported (JES2)
		...1 ....		JPSYFINA	"B'00010000'" no data returned for this system - not active or cannot be reached (JES2)
		.... 1...		JPSYFGLB	"B'00001000'" global system in a complex (JES3)
		.... .1..		JPSYFPRI	"B'00000100'" primary subsystem
		.... ..1.		JPSYFPXQ	"B'00000010'" \$PXEQ issued on this member (JES2)
		.... ...1		JPSYFERR	"B'00000001'" error accessing data from the system
38	(26)	BITSTRING	2	JPSYVERD	Version of the data returned from this system (JES2) (for diagnostic purposes only)
40	(28)	SIGNED	2	JPSYMBNR	JES2 MAS member number
42	(2A)	SIGNED	1	JPSYJ2PL	JES product level
43	(2B)	SIGNED	1	JPSYJ2SL	JES service level
43	(2B)	X'2C'	0	JPSYSESZ	"*-JPSYSIFE" Size of system information entry (internal use only)

Table 150. Cross Reference for IAZJPLXI

Name	Offset	Hex Tag
JPSYCMCH	15	
JPSYCMCL	14	
JPSYFERR	25	1
JPSYFGLB	25	8
JPSYFINA	25	10
JPSYFLAG	25	
JPSYFNDD	25	40
JPSYFPRC	25	80
JPSYFPRI	25	4
JPSYFPXQ	25	2
JPSYFSUP	25	20
JPSYJ2PL	2A	
JPSYJ2SL	2B	
JPSYLANG	0	
JPSYMBNR	28	
JPSYMBRN	8	
JPSYMOD	3	

Table 150. Cross Reference for IAZJPLXI (continued)

Name	Offset	Hex Tag
JPSYNENT	6	
JPSYOENT	4	
JPSYSENT	8	
JPSYSESZ	2B	2C
JPSYSIFE	0	
JPSYSINF	0	
JPSYSIZE	A	C
JPSYSPRF	0	
JPSYSUBS	10	
JPSYSYSN	0	
JPSYTYPE	2	
JPSYVERD	26	
JPSYVERN	1D	
JPSYXLNG	0	
JPSYXMOD	3	
JPSYXSIZ	3	4
JPSYXTYP	2	

## IAZJPNJN information

### IAZJPNJN programming interface information

The following fields are **NOT** programming interface information:

- NJNCSIZE
- NJNH SIZE
- NJNLSTRP
- NJNSAVL
- NJNSDATA
- NJNSEYE
- NJNSNEXT
- NJNSSIZE
- NJNSSTHL
- NJNSSTPL
- NJNSSTSP
- NJNSSTTL
- NJNSTOR
- NJSHSIZE
- N2NGSIZE
- N2NPESZE
- N2NPSIZE
- N3NGSIZE

- N3NPESZE
- N3NPSIZE

## IAZJPNJN heading information

<b>Common name:</b>	Parameters and data structures returned by NJE node information SSI (subfunction of SSI 82)
<b>Macro ID:</b>	IAZJPNJN
<b>DSECT name:</b>	See below for DSECT names of individual data structures
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	SSI parameter list - 'SSJPNJNL' See other DSECTs for the eye-catchers they use. Offset: NJNLEYE Length: L'NJNLEYE
<b>Storage attributes:</b>	Subpool: Parameter list - determined by caller Data structures returned by the SSI - 230 Key: Parameter list - determined by caller Data structures returned by the SSI - key 1 Residency: Virtual - anywhere in 31-bit private storage Real - anywhere in 64 bit storage
<b>Size:</b>	See below for sizes of individual DSECTs
<b>Created by:</b>	Parameter list - by SSI caller Data structures returned by the SSI - by SSI code
<b>Pointed to by:</b>	SSJPUSER in the SSOB extension for SSI 82 (see IAZSSJP macro)
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the data structures used by NJE node information SSI (subfunction of SSI 82): - SSI parameter list - data structures returned by the SSI - storage areas managed by the SSI The SSI returns information about NJE nodes managed by job entry subsystem. By default, SSI returns information only from the local system (the one where SSI was called). Options are provided to request information from other systems in a JESplex (MAS members for JES2). This SSI is supported by JES2 and JES3.

## IAZJPNJN mapping

Table 151. Structure NJNL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NJNL	, NJE node SSI parameter list
0	(0)	CHARACTER	8	NJNLEYE	I.Eye-catcher
8	(8)	ADDRESS	2	NJNLLNG	I.Length of parameter list
10	(A)	BITSTRING	2	NJNLVRM(0)	I.Parm list ver/mod
10	(A)	BITSTRING	1	NJNLVER	I.Parm list version



Table 151. Structure NJNL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
11	(B)	BITSTRING	1	NJNLMOD	I.Parm list modification
11	(B)	X'1'	0	NJNLVER1	"1" original version
11	(B)	X'0'	0	NJNLMOD0	"0" original modification
11	(B)	BITSTRING	0	NJNLVRM1	"X'0100'" original ver/mod
11	(B)	BITSTRING	0	NJNLVRMC	"X'0100'" latest ver/mod
12	(C)	BITSTRING	2	NJNLSVRM(0)	O.Subsystem ver/mod
12	(C)	BITSTRING	1	NJNLsver	O.Subsystem version
13	(D)	BITSTRING	1	NJNLsMOD	O.Subsystem modification
13	(D)	X'1'	0	NJNLsvr1	"1" original version
13	(D)	X'2'	0	NJNLsvr2	"2" version 2
13	(D)	X'0'	0	NJNLsMD0	"0" original modification
13	(D)	BITSTRING	0	NJNLsVM1	"X'0100'" original ver/mod
13	(D)	BITSTRING	0	NJNLsVM2	"X'0200'" ver/mod 2
13	(D)	BITSTRING	0	NJNLsVMC	"X'0200'" latest ver/mod
14	(E)	BITSTRING	1		Reserved
15	(F)	BITSTRING	1	NJNLopt1	I.Processing options:
		1... ....		NJNLODMC	"B'10000000'" perform security label dominance check (this check is always performed for non-authorized callers) (JES2)
<p>The following fields specify filters which can be used to limit output to a subset of available data. Implicit OR is performed between filters which apply to the same node attribute. E.g. if both NJNL1SSG and NJNL1CSG are selected, SSI will return NJE nodes which are defined with compatible signon in addition to NJE nodes which are defined with a secure signon.</p> <p>Implicit AND is performed between filters which apply to the different node attributes. E.g. if both NJNL1NAM and NJNL1SNA filters are selected, SSI will return NJE nodes with the names matching NJNLNOD1 field and which are at the same time connected via SNA protocol.</p> <p>If filter is not recognized (e.g. filter added in a future release), or does not apply, it will not have impact on the result of the SSI call. E.g. JES3-only filters will not have impact on SSI output from JES2.</p>					
16	(10)	BITSTRING	1	NJNLFLT1	IS.Filter by node attributes (1):
		1... ....		NJNL1NAM	"B'10000000'" select by node name (see NJNLNOD1)
		.1.. ....		NJNL1RNG	"B'01000000'" select by range of node numbers (JES2) (see NJNLRNGL and NJNLRNGH)
		..1. ....		NJNL1SSG	"B'00100000'" select nodes with secure signon
		...1 ....		NJNL1CSG	"B'00010000'" select nodes with compatible signon
		.... 1...		NJNL1NET	"B'00001000'" select by subnet name (JES2) (see NJNLSUBN)
		.... .1..		NJNL1SNA	"B'00000100'" select nodes using SNA protocol (JES3)
		.... ..1.		NJNL1BSC	"B'00000010'" select nodes using BSC protocol (JES3)
		.... ...1		NJNL1TCP	"B'00000001'" select nodes using TCP protocol (JES3)
17	(11)	BITSTRING	1	NJNLFLT2	IS.Filter by node attributes (2):

Table 151. Structure NJNL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
18	(12)	BITSTRING	1	NJNL2PMY	"B'10000000'" select nodes managed by path manager (JES2)
				NJNL2PMN	"B'01000000'" select nodes not managed by path manager (JES2)
				NJNL2TLS	"B'00100000'" select nodes using secure sockets (TLS) (JES3)
				NJNLFLTC	IS.Filter by connection status:
				NJNLCOWN	"B'10000000'" select only local (own or home) node - this filter should not be used with any other connection filter
				NJNLCADJ	"B'01000000'" select adjacent nodes - adjacent node is one hop away from the local node
				NJNLCDIR	"B'00100000'" select directly attached nodes - these are adjacent nodes which use dedicated lines
				NJNLCCNC	"B'00010000'" select connected (reachable) nodes - JES is ready to send data to connected nodes
				NJNLCNCN	"B'00001000'" select not connected nodes - node is configured but JES is not able to communicate with it
				NJNLCPDN	"B'00000100'" select nodes pending connection
NJNLCVIA	"B'00000010'" select nodes connected via specified adjacent node (see NJNLNOD2)				
19	(13)	BITSTRING	1	NJNLFLTA	IS.Filter by node authority: (JES2)
				NJNLADCY	"B'10000000'" with authority to device cmds
				NJNLADCN	"B'01000000'" without authority to device cmds
				NJNLAJCY	"B'00100000'" with authority to job cmds
				NJNLAJCN	"B'00010000'" without authority to job cmds
				NJNLANCY	"B'00001000'" with authority to net cmds
				NJNLANCN	"B'00000100'" without authority to net cmds
				NJNLASCY	"B'00000010'" with authority to system cmds
				NJNLASCN	"B'00000001'" without authority to system cmds
Filter by the system name or JES2 member name of the system(s) in the JESplex, which should be processed for the data. If none of these filters are specified, SSI will only return data from the system where SSI was called. To request information from other systems (or members) in a JESplex, specify system or member selection filter.					
20	(14)	BITSTRING	1	NJNLFLTS	IS.System/member selection:
				NJNLSSYS	"B'10000000'" use system selection filter (see NJNLSYSN) (JES2)
				NJNLSMBR	"B'01000000'" use member selection filter (see NJNLMBRN) (JES2)
21	(15)	BITSTRING	3		Reserved

Table 151. Structure NJNL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
24	(18)	SIGNED	4	(0)	IS.Node number range (used with NJNL1RNG) (JES2)
24	(18)	SIGNED	4	NJNLRNGL	node number range low
28	(1C)	SIGNED	4	NJNLRNHG	node number range high
32	(20)	CHARACTER	8	NJNLNOD1	IS*.Node name for selection (used with NJNL1NAM)
40	(28)	CHARACTER	8	NJNLNOD2	IS*.Node name for selection (used with NJNLCVIA)
48	(30)	CHARACTER	8	NJNLSUBN	IS*.Subnet name for selection (used with NJNL1NET) (JES2)
56	(38)	CHARACTER	8	NJNLSSYN	IS*.System name for selection (used with NJNLSSYS) (JES2)
64	(40)	CHARACTER	8	NJNLMBRN	IS*.JES2 MAS member name for selection (used with NJNLSMBR) (JES2)
72	(48)	SIGNED	4	(10)	Reserved
112	(70)	ADDRESS	4	NJNLDPTR	0.Ptr to data for first NJE node (see NJNHDR)
116	(74)	ADDRESS	4	NJNLMPTR	0.Ptr to first system/member data area (see NJSHDR) (JES2)
120	(78)	SIGNED	4	NJNLNUM	0.Number of NJE node data areas in a chain (see NJNLDPTR)
124	(7C)	SIGNED	4	NJNLMNUM	0.Number of system/member data areas in a chain (see NJNLMPTR)
NJNLSTRP is an anchor for use by the subsystem that responds to this request. The caller must set this to zero on the first call and after that this field will be managed by subsystem.					
128	(80)	ADDRESS	4	NJNLSTRP	0.Storage management anchor
NJE operating constants (output areas)					
132	(84)	BITSTRING	1	NJNOPTS	0. NJE operating constants
		1... ....		NJNOPREC	"B'10000000'" PRECHECK active
		.1.. ....		NJNOLOCV	"B'01000000'" Local node VFYPATH active
		..1. ....		NJNOSUBV	"B'00100000'" SUBNET verify active
133	(85)	BITSTRING	3		Reserved
136	(88)	SIGNED	4	(9)	Reserved
136	(88)	X'AC'	0	NJNLSZE1	"*-NJNL" Version 1 length
136	(88)	X'AC'	0	NJNLSize	"*-NJNL" Current version length

Table 151. Structure NJNL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>The following DSECTs define data structures returned by NJE node SSI. After successful call to the SSI, field NJNLDPTR points to a chain of data areas representing data for each NJE node. Data area for one NJE node consists of the following contiguous data structures:</p> <ul style="list-style-type: none"> <li>- Header - (NJNHDR )</li> <li>- Prefix section (NJNFPREF)</li> <li>- Common section (NJNCMN )</li> <li>- JES-dependent general data section</li> <li>- optional detailed data sections</li> </ul> <p>JES2 returns these sections:</p> <ul style="list-style-type: none"> <li>- JES2 general data section (N2NGEN )</li> <li>- optional JES2 path data section, (N2NPATN ) which contains one or more JES2 path information entries (N2NPTE)</li> </ul> <p>JES3 returns these sections:</p> <ul style="list-style-type: none"> <li>- JES3 general data section (N3NGEN )</li> <li>- optional JES3 path data section, (N3NPATN ) which contains one or more JES3 path information entries (N3NPTE)</li> </ul> <p>In addition, field NJNLMPTR points to a chain of system information data areas. One such data area is returned for each SSI call, provided that at least one system/member matches system and member selection filters. This data area returns basic data about systems (or members) in a JESplex, which were processed to obtain data for this SSI call. System information data area consists of the following contiguous data structures:</p> <ul style="list-style-type: none"> <li>- Header (NJSHDR )</li> <li>- Prefix section (JPSYSPRF in macro IAZJPLXI)</li> <li>- System information section (JPSYSINF in macro IAZJPLXI)</li> </ul> <p>Note that repeated calls to the "obtain data" subfunction of this SSI (SSJPNJOD) without intervening call to "release storage" subfunction (SSJPNJRS), will cause data from a new SSI call to be prepended to data from an earlier SSI call.</p>					
Section types and modifiers					
	.... ....			NJNTYPRF	"X'00'" Prefix section
	.... ...1			NJNTYCMN	"X'01'" Common section
	.... ..1.			NJNTYJS2	"X'02'" JES2-specific section
	.... ..11			NJNTYJS3	"X'03'" JES3-specific section
Modifiers for the JES2 sections (NJNTYJS2)					
	.... ...1			NJNMDJ2G	"X'01'" JES2 general data section
	.... ..1.			NJNMDJ2P	"X'02'" JES2 path data section
Modifiers for the JES3 sections (NJNTYJS3)					
	.... ...1			NJNMDJ3G	"X'01'" JES3 general data section
	.... ..1.			NJNMDJ3P	"X'02'" JES3 path data section

Table 152. Structure NJNHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NJNHDR	, NJE node data header
0	(0)	CHARACTER	8	NJNHEYE	Eye-catcher
8	(8)	ADDRESS	2	NJNHOHDR	Offset to first section (prefix)
10	(A)	BITSTRING	2		Reserved
12	(C)	ADDRESS	4	NJNHNEXT	Address of next header

Table 152. Structure NJNHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	ADDRESS	4	NJNHJPLX	Address of system information entry for this member
16	(10)	X'14'	0	NJNHSIZE	"*-NJNHDR" Header size (internal use only)

Table 153. Structure NJNFPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NJNFPREF	, Prefix section
0	(0)	ADDRESS	2	NJNFLNG	Total length of all sections for this header (header itself is not included)
2	(2)	ADDRESS	1	NJNFTYPE	Section type
3	(3)	ADDRESS	1	NJNFMOD	Section type modifier
3	(3)	X'4'	0	NJNFSize	"*-NJNFPREF" Prefix section size

Table 154. Structure NJNCMN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NJNCMN	, NJE node common section
0	(0)	ADDRESS	2	NJNCLNG	Length of this section
2	(2)	ADDRESS	1	NJNCTYPE	Section type
3	(3)	ADDRESS	1	NJNCMOD	Section type modifier
4	(4)	CHARACTER	8	NJNCNAME	Node name
12	(C)	CHARACTER	8	NJNCSSYN	Name of the reporting system
20	(14)	CHARACTER	8	NJNCMBRN	MAS member name of the reporting system (JES2)
28	(1C)	BITSTRING	1	NJNCsFLG	Node status flags:
	1... ....			NJNCsLCL	"B'10000000" local node - also known as own or home node
	.1.. ....			NJNCsCNC	"B'01000000" connected node (at least one path is connected)
	..1. ....			NJNCsPND	"B'00100000" pending node (at least one path is pending)
	...1 ....			NJNCsADJ	"B'00010000" adjacent node
	.... 1...			NJNCsDIR	"B'00001000" directly attached node
29	(1D)	BITSTRING	1	NJNCfLG1	Processing flags:
	1... ....			NJNC1SPW	"B'10000000" send signon password
	.1.. ....			NJNC1VPW	"B'01000000" verify signon password
	..1. ....			NJNC1EPW	"B'00100000" encrypt job password
	...1 ....			NJNC1PWL	"B'00010000" local password check (JES3)
	.... 1...			NJNC1SSG	"B'00001000" secure sign-on
	.... .1..			NJNC1CSG	"B'00000100" compatible sign-on
30	(1E)	BITSTRING	1	NJNCfLG2	More processing flags:
	1... ....			NJNC2TRC	"B'10000000" trace requested
	.1.. ....			NJNC2RST	"B'01000000" autoconnect/restart
	..1. ....			NJNC2HDJ	"B'00100000" hold received jobs
	...1 ....			NJNC2HDS	"B'00010000" hold received SYSOUT

Table 154. Structure NJNCMN (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		NJNC2VFY	"B'00001000'" Verify path set for node
31	(1F)	BITSTRING	1		Reserved
32	(20)	CHARACTER	10	NJNCLINE	Associated line name: dedicated line (JES2) default line (JES3)
42	(2A)	SIGNED	2	NJNCRINT	Automatic restart (reconnect) interval - minutes
44	(2C)	SIGNED	2	NJNCRETR	Max number of reconnection retries (0 - indefinite retry)
46	(2E)	CHARACTER	8	NJNCSECL	Security label (JES2)
54	(36)	BITSTRING	2		Reserved
54	(36)	X'38'	0	NJNC SIZE	"*-NJNCMN" NJE node common section size (internal use)

Table 155. Structure N2NGEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N2NGEN	, JES2 general data section
0	(0)	ADDRESS	2	N2NGLNG	Length of this section
2	(2)	ADDRESS	1	N2NGTYPE	Section type
3	(3)	ADDRESS	1	N2NGMOD	Section type modifier
4	(4)	SIGNED	4	N2NGNUM	Node number
8	(8)	BITSTRING	1	N2NGSFLG	Node status flags:
		1... ....		N2NGSPMD	"B'10000000'" path manager is down
		.1.. ....		N2NGSNOP	"B'01000000'" non path manager mode
		..1. ....		N2NGSEND	"B'00100000'" end node (no forwarding)
		...1 ....		N2NGSPRV	"B'00010000'" private node
		.... 1...		N2NGSDIR	"B'00001000'" only allow direct connection
9	(9)	BITSTRING	1	N2NGFLG1	Processing flags:
		1... ....		N2NG1ADV	"B'10000000'" authority to device cmds
		.1.. ....		N2NG1AJB	"B'01000000'" authority to job cmds
		..1. ....		N2NG1ANT	"B'00100000'" authority to net cmds
		...1 ....		N2NG1ASY	"B'00010000'" authority to system cmds
		.... 1...		N2NG1XMJ	"B'00001000'" transmit jobs
		.... .1..		N2NG1XMS	"B'00000100'" transmit sysout
		.... ..1.		N2NG1RCJ	"B'00000010'" receive jobs
		.... ...1		N2NG1RCS	"B'00000001'" receive sysout
10	(A)	BITSTRING	1	N2NGFLG2	More processing flags:
		1... ....		N2NG2ARS	"B'10000000'" accept resistance
11	(B)	BITSTRING	1	N2NGCMPT	Compaction table id
12	(C)	SIGNED	4	N2NGREST	Node resistance
16	(10)	CHARACTER	8	N2NGSUBN	NJE subnet name
24	(18)	CHARACTER	8	N2NGLOGM	VTAM logmode
32	(20)	CHARACTER	10	N2NGLOGN	Logon device name
42	(2A)	CHARACTER	10	N2NGNSVN	NETSRV name

Table 155. Structure N2NGEN (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
52	(34)	BITSTRING	3	N2NGLNID	Binary device id for NJNCLINE
55	(37)	BITSTRING	3	N2NGLGID	Binary device id for N2NGLOGN
58	(3A)	BITSTRING	3	N2NGNSID	Binary device id for N2NGNSVN
61	(3D)	BITSTRING	3		Reserved
61	(3D)	X'40'	0	N2NGSIZE	"*-N2NGEN" JES2 general data section size (internal use)

Table 156. Structure N2NPATH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N2NPATH	, JES2 path information section
0	(0)	ADDRESS	2	N2NPLNG	Length of this section including all path entries
2	(2)	ADDRESS	1	N2NPTYPE	Section type
3	(3)	ADDRESS	1	N2NPMOD	Section type modifier
4	(4)	ADDRESS	2	N2NPOENT	Offset to first entry
6	(6)	ADDRESS	2	N2NPONENT	Number of entries
8	(8)	ADDRESS	2	N2NPSENT	Size of each entry
10	(A)	BITSTRING	2		Reserved
10	(A)	X'C'	0	N2NPSize	"*-N2NPATH" JES2 path information section size (internal use)

Table 157. Structure N2NPTEEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N2NPTEEN	, JES2 path information entry
0	(0)	BITSTRING	1	N2NPSFLG	Path status flags:
		1... ....		N2NPSVLN	"B'10000000" connected via line
		.1.. ....		N2NPVMB	"B'01000000" connected via member
		..1. ....		N2NPASWR	"B'00100000" awaiting reset
		...1 ....		N2NPSSGN	"B'00010000" signon in progress
		.... 1...		N2NPSPND	"B'00001000" connection pending
1	(1)	BITSTRING	1		Reserved
Intermediate node name when path status is: "connected via line" (N2NPSVLN), "connection pending" (N2NPSPND), "awaiting reset" (N2NPASWR)					
2	(2)	CHARACTER	8	N2NPAM1	Via node name
Associated line name if path status is "connected via line" (N2NPSVLN) or "signon in progress" (N2NPSSGN) Associated member if path status is "connected via member N2NPVMB or "connection pending" (N2NPSPND)					
10	(A)	CHARACTER	10	N2NPAM2	Associated line/member name
20	(14)	SIGNED	4	N2NPRES	Path resistance
20	(14)	X'18'	0	N2NPESZ	"*-N2NPTEEN" JES2 path entry size (internal use)

Table 158. Structure N3NGEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N3NGEN	, JES3 general data section
0	(0)	ADDRESS	2	N3NGLNG	Length of this section
2	(2)	ADDRESS	1	N3NGTYPE	Section type
3	(3)	ADDRESS	1	N3NGMOD	Section type modifier
4	(4)	BITSTRING	1	N3NGSFLG	Node connection status:
		1... ....		N3NGSSNA	"B'10000000" connected via SNA
		.1.. ....		N3NGSBSC	"B'01000000" connected via BSC
		..1. ....		N3NGSTCP	"B'00100000" connected via TCP
		...1 ....		N3NGSIND	"B'00010000" indirect node
		.... 1...		N3NGSALS	"B'00001000" alias of home node
		.... .1..		N3NGSCTC	"B'00000100" CTC node
		.... ..1.		N3NGSSGS	"B'00000010" send signature
		.... ...1		N3NGSSGV	"B'00000001" verify signature
5	(5)	BITSTRING	1	N3NGFLG1	Processing flags:
		1... ....		N3NG1DFC	"B'10000000" default class
		.1.. ....		N3NG1XNR	"B'01000000" writer name is required to hold SYSOUT for external writer
		..1. ....		N3NG1NTH	"B'00100000" net hold
		...1 ....		N3NG1TLS	"B'00010000" secure socket (TLS)
6	(6)	BITSTRING	1	N3NGEPR	NETPR
7	(7)	BITSTRING	1	N3NGEPU	NETPU
8	(8)	ADDRESS	2	N3NGBUFS	Buffer size
10	(A)	CHARACTER	8	N3NGPRCL	PRTDEF class
18	(12)	CHARACTER	8	N3NGTSCL	PRTTSO class
26	(1A)	CHARACTER	8	N3NGXWCL	PRTXWTR class
34	(22)	CHARACTER	8	N3NGPUCL	PUNDEF class
42	(2A)	CHARACTER	8	N3NGPART	Spool partition
50	(32)	CHARACTER	8	N3NGBDTI	Bulk data transfer (BDT) id
58	(3A)	BITSTRING	1	N3NGSTRM	Stream
59	(3B)	BITSTRING	1	N3NGMAXL	Max number of lines
60	(3C)	ADDRESS	1	N3NGNRJT	Number of job transmitters
61	(3D)	ADDRESS	1	N3NGNRJR	Number of job receivers
62	(3E)	ADDRESS	1	N3NGNROT	Number of output transmitters
63	(3F)	ADDRESS	1	N3NGNROR	Number of output receivers
63	(3F)	X'40'	0	N3NGSIZE	"*-N3NGEN" JES3 general data section size (internal use)

Table 159. Structure N3NPATH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N3NPATH	, JES3 path information section
0	(0)	ADDRESS	2	N3NPLNG	Length of this section
2	(2)	ADDRESS	1	N3NPTYPE	Section type
3	(3)	ADDRESS	1	N3NPMOD	Section type modifier
4	(4)	ADDRESS	2	N3NPOENT	Offset to first entry
6	(6)	ADDRESS	2	N3NPONENT	Number of entries
8	(8)	ADDRESS	2	N3NPSENT	Size of each entry



Table 159. Structure N3NPATH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
10	(A)	BITSTRING	2		Reserved
10	(A)	X'C'	0	N3NPSIZE	"*-N3NPATH" JES3 path information section size (internal use)

Table 160. Structure N3NPTE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	N3NPTE	, JES3 path information entry
0	(0)	CHARACTER	8	N3NPNNAM	Node name
0	(0)	X'8'	0	N3NPESIZE	"*-N3NPTE" JES3 path entry size (internal use)

Table 161. Structure NJSHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NJSHDR	, System information header
0	(0)	CHARACTER	8	NJSHEY	Eye-catcher
8	(8)	ADDRESS	2	NJSHOHR	Offset to first (prefix) section
10	(A)	BITSTRING	2		Reserved
12	(C)	ADDRESS	4	NJSHNEXT	Address of next header
12	(C)	X'10'	0	NJSHSIZE	"*-NJSHDR" Header size (internal use only)

Table 162. Structure NJNSTOR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NJNSTOR	, Storage management header
0	(0)	CHARACTER	8	NJNSEY	Eye-catcher
8	(8)	ADDRESS	2	NJNSSTHL	Length of header
10	(A)	BITSTRING	2		Reserved
12	(C)	BITSTRING	1	NJNSSTSP	Subpool of this storage block
12	(C)	X'E6'	0	NJNSSTPL	"230" Recommended subpool to use
13	(D)	BITSTRING	3	NJNSSTTL	Total length of this storage block (including this header)
16	(10)	ADDRESS	4	NJNSNEXT	Pointer to next storage management header
20	(14)	ADDRESS	4	NJNSAVL	Pointer to first available byte
24	(18)	ADDRESS	4	NJNSDATA(0)	Start of data in the block
24	(18)	X'18'	0	NJNSIZE	"*-NJNSTOR"

Table 163. Cross Reference for IAZJPNJN

Name	Offset	Hex Tag
NJNCFLG1	1D	
NJNCFLG2	1E	
NJNCLINE	20	
NJNCLNG	0	
NJNCMBRN	14	
NJNCMN	0	

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
NJNCMOD	3	
NJNCNAME	4	
NJNCRETR	2C	
NJNCRINT	2A	
NJNC SADJ	1C	10
NJNCSCNC	1C	40
NJNCSDIR	1C	8
NJNCSECL	2E	
NJNC SFLG	1C	
NJNC SIZE	36	38
NJNC SLCL	1C	80
NJNC SPND	1C	20
NJNC SYSN	C	
NJNCTYPE	2	
NJNC1CSG	1D	4
NJNC1EPW	1D	20
NJNC1PWL	1D	10
NJNC1SPW	1D	80
NJNC1SSG	1D	8
NJNC1VPW	1D	40
NJNC2HDJ	1E	20
NJNC2HDS	1E	10
NJNC2RST	1E	40
NJNC2TRC	1E	80
NJNC2VFY	1E	8
NJNFLNG	0	
NJNFMOD	3	
NJNFPREF	0	
NJNF SIZE	3	4
NJNFTYPE	2	
NJNHDR	0	
NJNHEYE	0	D1D7D5D1
NJNHJPLX	10	
NJHNH NEXT	C	
NJNHOHDR	8	14
NJNH SIZE	10	14
NJNL	0	
NJNL ADCN	13	40
NJNL ADCY	13	80

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
NJNLAJCN	13	10
NJNLAJCY	13	20
NJNLANCN	13	4
NJNLANCY	13	8
NJNLASCN	13	1
NJNLASCY	13	2
NJNLCADJ	12	40
NJNLCCNC	12	10
NJNLCDIR	12	20
NJNLCNCN	12	8
NJNLCOWN	12	80
NJNLCPDN	12	4
NJNLCVIA	12	2
NJNLDNUM	78	
NJNLDPTR	70	
NJNLEYE	0	E2E2D1D7
NJNLFLTA	13	
NJNLFLTC	12	
NJNLFLTS	14	
NJNLFLT1	10	
NJNLFLT2	11	
NJNLLNG	8	
NJNLMBRN	40	
NJNLMNUM	7C	
NJNLMOD	B	
NJNLMOD0	B	0
NJNLMPTR	74	
NJNLNOD1	20	
NJNLNOD2	28	
NJNLODMC	F	80
NJNLOPT1	F	
NJNLRNGH	1C	
NJNLRNGL	18	
NJNL SIZE	88	AC
NJNLSMBR	14	40
NJNLSMD0	D	0
NJNLSMOD	D	
NJNLSSYS	14	80
NJNLSTRP	80	

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
NJNLSUBN	30	
NJNLSVER	C	
NJNLSVMC	D	200
NJNLSVM1	D	100
NJNLSVM2	D	200
NJNLSVRM	C	
NJNLSVR1	D	1
NJNLSVR2	D	2
NJNLSYSN	38	
NJNLSZE1	88	AC
NJNLVER	A	
NJNLVER1	B	1
NJNLVRM	A	
NJNLVRMC	B	100
NJNLVRM1	B	100
NJNL1BSC	10	2
NJNL1CSG	10	10
NJNL1NAM	10	80
NJNL1NET	10	8
NJNL1RNG	10	40
NJNL1SNA	10	4
NJNL1SSG	10	20
NJNL1TCP	10	1
NJNL2PMN	11	40
NJNL2PMY	11	80
NJNL2TLS	11	20
NJNMDJ2G	88	1
NJNMDJ2P	88	2
NJNMDJ3G	88	1
NJNMDJ3P	88	2
NJNOLOCV	84	40
NJNOPREC	84	80
NJNOPTS	84	
NJNOSUBV	84	20
NJNSAVL	14	
NJNSDATA	18	
NJNSEYE	0	D5D1D5C4
NJNSNEXT	10	
NJNSSIZE	18	18

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
NJNSSTHL	8	
NJNSSTPL	C	E6
NJNSSTSP	C	
NJNSSTTL	D	
NJNSTOR	0	
NJNTYCMN	88	1
NJNTYJS2	88	2
NJNTYJS3	88	3
NJNTYPRF	88	0
NJSHDR	0	
NJSHEYE	0	D1D7D5D1
NJSHNEXT	C	
NJSHOHR	8	10
NJSHSIZE	C	10
N2NGCMPT	B	
N2NGEN	0	
N2NGFLG1	9	
N2NGFLG2	A	
N2NGLGID	37	
N2NGLNG	0	
N2NGLNID	34	
N2NGLOGM	18	
N2NGLOGN	20	
N2NGMOD	3	
N2NGNSID	3A	
N2NGNSVN	2A	
N2NGNUM	4	
N2NGREST	C	
N2NGSDIR	8	8
N2NGSEND	8	20
N2NGSFLG	8	
N2NGSIZE	3D	40
N2NGSNOP	8	40
N2NGSPMD	8	80
N2NGSPRV	8	10
N2NGSUBN	10	
N2NGTYPE	2	
N2NG1ADV	9	80
N2NG1AJB	9	40

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
N2NG1ANT	9	20
N2NG1ASY	9	10
N2NG1RCJ	9	2
N2NG1RCS	9	1
N2NG1XMJ	9	8
N2NG1XMS	9	4
N2NG2ARS	A	80
N2NPATH	0	
N2NPESZE	14	18
N2NPLNG	0	
N2NPMOD	3	
N2NPNAM1	2	
N2NPNAM2	A	
N2NPENT	6	
N2NPOENT	4	
N2NPREST	14	
N2NPSAWR	0	20
N2NPSENT	8	
N2NPSFLG	0	
N2NPSize	A	C
N2NPSPND	0	8
N2NPSSGN	0	10
N2NPsvLN	0	80
N2NPsvMB	0	40
N2NPTEN	0	
N2NPType	2	
N3NGBDTI	32	
N3NGBUFS	8	
N3NGEN	0	
N3NGEPR	6	
N3NGEPU	7	
N3NGFLG1	5	
N3NGLNG	0	
N3NGMAXL	3B	
N3NGMOD	3	
N3NGNRJR	3D	
N3NGNRJT	3C	
N3NGNROR	3F	
N3NGNROT	3E	

Table 163. Cross Reference for IAZJPNJN (continued)

Name	Offset	Hex Tag
N3NGPART	2A	
N3NGPRCL	A	
N3NGPUCL	22	
N3NGSALS	4	8
N3NGSBSC	4	40
N3NGSCTC	4	4
N3NGSFLG	4	
N3NGSIND	4	10
N3NGSIZE	3F	40
N3NGSSGS	4	2
N3NGSSGV	4	1
N3NGSSNA	4	80
N3NGSTCP	4	20
N3NGSTRM	3A	
N3NGTSCL	12	
N3NGTYPE	2	
N3NGXWCL	1A	
N3NG1DFC	5	80
N3NG1NTH	5	20
N3NG1TLS	5	10
N3NG1XNR	5	40
N3NPATH	0	
N3NPESZE	0	8
N3NPLNG	0	
N3NPMOD	3	
N3NPONENT	6	
N3NPNNAM	0	
N3NPOENT	4	
N3NPSENT	8	
N3NPSize	A	C
N3NPten	0	
N3NPtype	2	

## IAZJPRGP information

### IAZJPRGP programming interface information

The following fields are **NOT** programming interface information:

- JRGESIZE
- JRGGENSZ

- JRGGESTR
- JRGHDSZ
- JRG PSTBG
- JRG PSTCP
- JRG PSTHL
- JRG PSTID
- JRG PSTNX
- JRG PSTOR
- JRG PSTPL
- JRG PSTRP
- JRG PSTSP
- JRG PSTSZ
- JRG PSTTL

## IAZJPRGP heading information

**Common name:** Resource group information parameter list for SSI 82 (JES2 only)

**Macro ID:** IAZJPRGP

**DSECT name:** JPRGP

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** JESGRPI  
Offset: JRGPID  
Length: L'JRGPID

**Storage attributes:** Subpool: Parameter List = Subpool of Caller  
Output Data = Subpool 230  
Key: Parameter List = Key of Caller  
Output Data = Key 1  
Residency: Virtual = 31-bit private storage  
Real = 64-bit storage

**Size:** See JRGPSZE

**Created by:** Caller of SSI function 'SSOBSSJP' = 82

**Pointed to by:** SSJPUSER in the SSOB extension

**Serialization:** None

**Function:**

## IAZJPRGP mapping

Table 164. Structure JPRGP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPRGP	
0	(0)	CHARACTER	8	JRGPID	I.Eye catcher
8	(8)	ADDRESS	2	JRGPLEN	I.Length of JPRGP parameter list



Table 164. Structure JPRGP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>There are two 2 byte versions for this SS0B extension. JRGPPER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JRGPPER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JRGPPER0 may be higher than JRGPPER. In this case, only the fields valid at the JRGPPER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JRGPPER(0)	I.SS0B version
10	(A)	ADDRESS	1	JRGPPERL	I.SS0B version level
11	(B)	ADDRESS	1	JRGPPERM	I.SS0B version modifier
11	(B)	BITSTRING	0	JRGPPER010	"X'0100'" Initial version number of IAZJPRGP.
11	(B)	BITSTRING	0	JRGPPER#	"X'0100'" Latest version
11	(B)	X'1'	0	JRGPPERL	"1" Current version level
11	(B)	X'0'	0	JRGPPERM	"0" Current version modifier
12	(C)	SIGNED	2	JRGPPER0	0.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved.
<p>JRGPPER is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SS0B extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	SIGNED	4	JRGPPER	Storage management anchor
Begin input-only fields.					
20	(14)	BITSTRING	1	JRGPPERL	IS.Indicate desired filters
		1... ....		JRGPPER	"B'10000000'" Return TG (SPOOL) info
		.1.. ....		JRGPPERJQE	"B'01000000'" Return JQE info
		..1. ....		JRGPPERJOE	"B'00100000'" Return JOE info
		...1 ....		JRGPPERBRT	"B'00010000'" Return BERT info
21	(15)	BITSTRING	7		Reserved
28	(1C)	SIGNED	4	(12)	Reserved for future use
Begin output-only fields.					
76	(4C)	ADDRESS	4	JRGPPERPT	0.Pointer to first resource group structure (JRGHDR)
80	(50)	SIGNED	4	JRGPPERNM	0.Number of resource group (JRGHDR) data buffers returned.
84	(54)	SIGNED	4	(11)	Reserved for future use
84	(54)	X'80'	0	JRGPPER1	"*-JPRGP" JRGGRP version 1 length
84	(54)	X'80'	0	JRGPPER	"*-JPRGP" JRGGRP current version length

Table 165. Structure JRGPSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JRGPSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JRGPOSTID	Eyecatcher
8	(8)	ADDRESS	2	JRGPOSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JRGPOSTSP	Subpool of area
12	(C)	X'E6'	0	JRGPOSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JRGPOSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JRGPOSTNX	Pointer to next area
20	(14)	ADDRESS	4	JRGPOSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JRGPOSTBG(0)	Start of data area
24	(18)	X'18'	0	JRGPOSTSZ	"(JRGPOSTBG-JRGPOSTOR)" JRGPOSTOR length

Table 166. Structure JRGHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JRGHDR	, Resource group header
0	(0)	CHARACTER	8	JRGEYE	Eye catcher
8	(8)	ADDRESS	2	JRGOPRF	Offset to prefix section
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	ADDRESS	4	JRGNXTP	Address of next JRGHDR
16	(10)	ADDRESS	4		Reserved for future use
16	(10)	X'14'	0	JRGHDSZ	"*-JRGHDR" Size of this header (Internal use only)
Resource Group Information Section Identifiers					
	.... ....			JRGIDPRF	"X'00'" Resource Group - Prefix
	.... ...1			JRGIDGEN	"X'01'" Resource Group - General
Resource Group Information Section Modifiers					
	.... ....			JRGIMGEN	"X'00'" Modifier - General

Table 167. Structure JRGPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JRGPREF	, Resource Group Prefix Section
0	(0)	ADDRESS	2	JRGPRLN	Length of entire resource group data, not including the header
2	(2)	ADDRESS	1	JRGPRTP	Section Type = Prefix
3	(3)	ADDRESS	1	JRGPRMD	Section Modifier = General
3	(3)	X'4'	0	JRGPRSZ	"*-JRGPREF" Size of this section

Table 168. Structure JRGGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JRGGENI	, Resource Group General Information
0	(0)	ADDRESS	2	JRGGLEN	Length of this section
2	(2)	ADDRESS	1	JRGGTYPE	Section Type = General

Table 168. Structure JRGGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
3	(3)	ADDRESS	1	JRGGMOD	Section Modifier = General
4	(4)	CHARACTER	8	JRGGNAME	Resource group name
12	(C)	SIGNED	2	JRGGECNT	Number of entries (JRGENTRY) in resource array
14	(E)	SIGNED	2	JRGGEOFS	Offset to first entry (JRGENTRY) in resource array
16	(10)	SIGNED	2	JRGGELEN	Length of each entry (JRGENTRY)
18	(12)	BITSTRING	2		Reserved for future use
20	(14)	SIGNED	4	JRGGESTR(0)	Start of resource array (Internal use only)
20	(14)	X'14'	0	JRGGENSZ	"*-JRGGENI" Size of this section (Internal use only)

Table 169. Structure JRGENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JRGENTRY	, Resource group limits entry
0	(0)	CHARACTER	8	JRGENAME	Resource type (printable)
8	(8)	BITSTRING	2	JRGETYPE	Resource type:
8	(8)	X'1'	0	JRGETTG	"1" TG (SP00L) usage
8	(8)	X'2'	0	JRGETJQE	"2" JQE usage
8	(8)	X'3'	0	JRGETJOE	"3" JOE usage
8	(8)	X'4'	0	JRGETBRT	"4" BERT usage
10	(A)	BITSTRING	1	JRGEACT	Limit enforcement type:
10	(A)	X'1'	0	JRGEATRK	"1" None - tracking only
10	(A)	X'2'	0	JRGEAWAI	"2" Wait when limit exceeded
10	(A)	X'3'	0	JRGEAFAI	"3" Fail when limit exceeded
11	(B)	BITSTRING	1	JRGEFLG1	Resource flags
		1... ....		JRGE1SHT	"B'10000000'" Resource shortage detected
12	(C)	SIGNED	2	JRGEPLIM	Percentage of resource that can be utilized by this resource group (% * 100)
14	(E)	BITSTRING	2		Reserved
16	(10)	SIGNED	8	JRGECNT	Current usage of the resource (units)
24	(18)	SIGNED	8	JRGEMAX	Resource usage limit (units)
24	(18)	X'20'	0	JRGESIZE	"*-JRGENTRY" Length of entry (internal use only)

Table 170. Cross Reference for IAZJPRGP

Name	Offset	Hex Tag
JPRGP	0	
JRGEACT	A	
JRGEAFAI	A	3
JRGEATRK	A	1
JRGEAWAI	A	2
JRGECNT	10	
JRGEFLG1	B	

Table 170. Cross Reference for IAZJPRGP (continued)

Name	Offset	Hex Tag
JRGEMAX	18	
JRGENAME	0	
JRGENTRY	0	
JRGEPLIM	C	
JRGESIZE	18	20
JRGETBRT	8	4
JRGETJOE	8	3
JRGETJQE	8	2
JRGETTG	8	1
JRGETYPE	8	
JRGEYE	0	D1D9C7C8
JRGE1SHT	B	80
JRGGECNT	C	
JRGGELEN	10	
JRGGENI	0	
JRGGENSZ	14	14
JRGGE0FS	E	
JRGGESTR	14	
JRGGLEN	0	14
JRGGMOD	3	
JRGGNAME	4	
JRGGTYPE	2	
JRGHDR	0	
JRGHDSZ	10	14
JRGIDGEN	10	1
JRGIDPRF	10	0
JRGIMGEN	10	0
JRGNXTP	C	
JRGOPRF	8	14
JRGPCVRL	B	1
JRGPCVRM	B	0
JRGPFBR	14	10
JRGPFJOE	14	20
JRGPFJQE	14	40
JRGPFLTR	14	0
JRGPFTG	14	80
JRGPID	0	
JRGPLEN	8	
JRGPREF	0	

Table 170. Cross Reference for IAZJPRGP (continued)

Name	Offset	Hex Tag
JRGPRGNM	50	0
JRGPRGPT	4C	
JRGPRLN	0	
JRGPRMD	3	
JRGPRSZ	3	4
JRGPRTP	2	
JRGPSTBG	18	
JRGPSTCP	14	
JRGPSTHL	8	
JRGPSTID	0	D1D9C7D7
JRGPSTNX	10	
JRGPSTOR	0	
JRGPSTPL	C	E6
JRGPSTRP	10	0
JRGPSTSP	C	0
JRGPSTSZ	18	18
JRGPSTTL	D	
JRGPSVR#	B	100
JRGPSZE	54	80
JRGPSZE1	54	80
JRGPVER	A	
JRGPVERL	A	
JRGPVERM	B	
JRGPVERO	C	0
JRGPV010	B	100

## IAZJPROC information

### IAZJPROC programming interface information

The following fields are **NOT** programming interface information:

- JPRCSTBG
- JPRCSTCP
- JPRCSTHL
- JPRCSTID
- JPRCSTNX
- JPRCSTOR
- JPRCSTPL
- JPRCSTRP
- JPRCSTSP

- JPRCSTSZ
- JPRCSTTL
- JPRDSIZE
- JPRDSLEN
- JPRDSTRT
- JPRGENSZ
- JPRHDSZ

## IAZJPROC heading information

**Common name:** PROCLIB, SUBMITLIB, and POLICYIB concatenation info parameter list for SSI 82.

**Macro ID:** IAZJPROC

**DSECT name:** JPROC

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** JESPROCI  
Offset: JPRCID  
Length: L'JPRCID

**Storage attributes:** Subpool: Parameter List = Subpool of Caller  
Output Data = Subpool 230  
Key: Parameter List = Key of Caller  
Output Data = Key 1  
Residency: Virtual = 31 bit private storage  
real = 64 bit storage

**Size:** See JPRCSZE

**Created by:** Caller of SSI function 'SSOBSSJP' = 82

**Pointed to by:** SSJPUSER in the SSOB extension

**Serialization:** None

**Function:** This macro provides the mapping of the parameter list used by programs to request PROCLIB, SUBMITLIB, and POLICYLIB data from the JES subsystem.

## IAZJPROC mapping

Table 171. Structure JPROC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JPROC	
0	(0)	CHARACTER	8	JPRCID	I.Eye catcher
8	(8)	ADDRESS	2	JPRCLEN	I.Length of JPROC parameter

Table 171. Structure JPROC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>There are two 2 byte versions for this SSOB extension. JPRCVER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JPRCVER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JPRCVER0 may be higher than JPRCVER. In this case, only the fields valid at the JPRCVER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JPRCVER(0)	I.SSOB version
10	(A)	ADDRESS	1	JPRCVERL	I.SSOB version level
11	(B)	ADDRESS	1	JPRCVERM	I.SSOB version modifier
11	(B)	BITSTRING	0	JPRCV010	"X'0100'" Initial version number of IAZJPROC.
11	(B)	BITSTRING	0	JPRCSVR#	"X'0100'" Latest version
11	(B)	X'1'	0	JPRCCVRL	"1" Current version level
11	(B)	X'0'	0	JPRCCVRM	"0" Current version modifier
12	(C)	SIGNED	2	JPRCVER0	0.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved.
<p>JPRCSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JPRCSTRP	Storage management anchor.
<p>Begin input-only fields.</p> <p>NOTES: - Many of the filters only apply to JES2 or JES3. Each filter is denoted with what applies.</p> <p>- In JES2, this SSI can be used to obtain information on the SUBMITLIB and POLICYLIB concatenations. Only one type of concatenation can be returned on a call.</p> <p>When requesting PROCLIB information, the JPRCFJBC, JPRCFSTC, JPRCFTSO, JPRCFINT, and JPRCFLOC filters in JPRCFLTR are a list of PROCLIBs to include in the output area. For example, setting JPRCFNAM with JPRCPNAM set to PROC00 and setting JPRCFTSO will return PROC00 AND the PROCLIB used for TSO logon. A particular PROCLIB concatenation will only be returned once even if it matches multiple filters.</p> <p>If the class specified in JPRCJCLS does not exist, this is considered an input error and no data will be returned.</p> <p>Filters JPRCFJBC, JPRCFSTC, JPRCFTSO, JPRCFINT, and JPRCFLOC only apply when PROCLIB data is being requested (that is, when JPRCFTYP is not set or when set and JPRCTYPE is set to JPRTPROC).</p>					
20	(14)	BITSTRING	1	JPRCFLTR	IS.Indicate desired filters
		1... ....		JPRCFNAM	"B'10000000'" Filter on PROCLIB DD name
		.1.. ....		JPRCFJBC	"B'01000000'" Return PROCLIB for JOBCCLASS (JES2 only)
		..1. ....		JPRCFSTC	"B'00100000'" Return started task PROCLIB

Table 171. Structure JPROC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		JPRCFTSO	"B'00010000'" Return TSO logon PROCLIB
		.... 1...		JPRCFINT	"B'00001000'" Return internal reader PROCLIB (JES3 only)
		.... .1..		JPRCFLOC	"B'00000100'" Return PROCLIB for address space calling the SSI
If type filtering is not set, then only PROCLIB type concatenations are returned. If JPRCFTYP is set and JPRCTYPE is zero, then only PROCLIB concatenations are returned.					
		.... ..1.		JPRCFTYP	"B'00000010'" Filter on concatenation type (JPRCTYPE) (JES2 only)
Filter by the system name or JES2 member name of the system(s) in the JESplex, which should be processed for the data. If none of these filters are specified, SSI will only return data from the system where SSI was called. To request information from other systems (or members) in a JESplex, specify system or member selection filter.					
21	(15)	BITSTRING	1	JPRCFLTS	IS.System/member selection:
		1... ....		JPRCSSYS	"B'10000000'" use system selection filter (see JPRCSYSN)
		.1.. ....		JPRCSMBR	"B'01000000'" use member selection filter (see JPRCMBRN)
22	(16)	BITSTRING	1	JPRCTYPE	IS.Type of concatenation to return (JES2 only)
22	(16)	X'1'	0	JPRTPROC	"1" PROCLIB type concat
22	(16)	X'2'	0	JPRTSBMT	"2" SUBMITLIB type concat
22	(16)	X'3'	0	JPRTPLCY	"3" POLICYLIB type concat
23	(17)	BITSTRING	5		Reserved
NOTE: Each filter below is enabled via one of the bit settings above.					
28	(1C)	CHARACTER	8	JPRCPNAM	IS*.PROCLIB DD name filter See JPRCFNAM bit
36	(24)	CHARACTER	8	JPRCJCLS	IS.JOBCLASS whose PROCLIB you want See JPRCFJBC bit
44	(2C)	CHARACTER	8	JPRCSYSN	IS*.System name for selection (used with JPRCSSYS)
52	(34)	CHARACTER	8	JPRCMBRN	IS*.JES2 MAS member name for selection (used with JPRCSMBR)
60	(3C)	SIGNED	4	(6)	Reserved for future use
Begin output-only fields.					
84	(54)	ADDRESS	4	JPRCLPTR	0.Pointer to first PROCLIB (JPRHDR) data buffer.
88	(58)	SIGNED	4	JPRCNMBR	0.Number of PROCLIB (JPRHDR) data buffers returned.
92	(5C)	ADDRESS	4	JPRCMPTR	0.Ptr to 1st system/member data area (see JPSHDR)
96	(60)	ADDRESS	4	JPRCMNUM	0.Number of system/member data areas returned
100	(64)	SIGNED	4	(9)	Reserved for future use
100	(64)	X'88'	0	JPRCSZE1	"*-JPROC" Fix parameter End: Ver 1



Table 171. Structure JPROC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
100	(64)	X'88'	0	JPRCSZE	"*-JPROC" JPRC Current version fixed parameter length

Table 172. Structure JPSHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPSHDR	, System information header
0	(0)	CHARACTER	8	JPSHEYE	Eye-catcher
8	(8)	ADDRESS	2	JPSHOHDR	Offset to 1st (prefix) sect
10	(A)	BITSTRING	2		Reserved
12	(C)	ADDRESS	4	JPSHNEXT	Address of next header
12	(C)	X'10'	0	JPSHSIZE	"*-JPSHDR" Header size (internal use)

Table 173. Structure JPRCSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRCSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JPRCSTID	Eyecatcher
8	(8)	ADDRESS	2	JPRCSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JPRCSTSP	Subpool of area
12	(C)	X'E6'	0	JPRCSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JPRCSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JPRCSTNX	Pointer to next area
20	(14)	ADDRESS	4	JPRCSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JPRCSTBG(0)	Start of data area
24	(18)	X'18'	0	JPRCSTSZ	"(JPRCSTBG-JPRCSTOR)" JPRCSTOR length

Table 174. Structure JPRHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRHDR	, PROCLIB Header Section
0	(0)	CHARACTER	8	JPREYE	Eye catcher
8	(8)	ADDRESS	2	JPROPRF	Offset to prefix section
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	ADDRESS	4	JPRNXTTP	Address of next PROCLIB
16	(10)	ADDRESS	4	JPRJPLEX	Address of system info entry for this entry
16	(10)	X'14'	0	JPRHDSZ	"*-JPRHDR" Size of this section (Internal use only)
PROCLIB Section Identifiers					
	.... ....			JPRIDPRF	"X'00'" PROCLIB Info - Prefix
	.... ...1			JPRIDGEN	"X'01'" PROCLIB Info - General
PROCLIB Section Modifiers					
	.... ....			JPRIMGEN	"X'00'" Modifier - General

Table 174. Structure JPRHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		JPRIMDSN	"X'01'" Modifier - Data set info

Table 175. Structure JPRPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRPREF	, PROCLIB Prefix
0	(0)	ADDRESS	2	JPRPRLN	Length of entire PROCLIB entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	JPRPRTPT	Type = Prefix Section
3	(3)	ADDRESS	1	JPRPRMD	Type Mod = General
3	(3)	X'4'	0	JPRPRSZ	"*-JPRPREF" Size of this section

Table 176. Structure JPRGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRGENI	, PROCLIB General Information.
0	(0)	ADDRESS	2	JPRGLN	Length of this section
2	(2)	ADDRESS	1	JPRGTY	Type = General Info
3	(3)	ADDRESS	1	JPRGMD	Type Mod = General
4	(4)	CHARACTER	8	JPRDDNAM	PROCLIB DD name
12	(C)	BITSTRING	1	JPRFLAG1	Flag byte
		1... ....		JPRP1STA	"B'10000000'" Static PROCLIB (from JES PROC)
		.1.. ....		JPRP1STC	"B'01000000'" Started task PROCLIB
		..1. ....		JPRP1TSO	"B'00100000'" TSO logon PROCLIB
		...1 ....		JPRP1PTH	"B'00010000'" PROCLIB includes a PATH=
		.... 1...		JPRP1NMV	"B'00001000'" A path was not allocated because OMVS not active
13	(D)	BITSTRING	1	JPRPTYPE	Type of concatenation
13	(D)	X'1'	0	JPRPTPRC	"1" PROCLIB type concat
13	(D)	X'2'	0	JPRPTSTM	"2" SUBMITLIB type concat
13	(D)	X'3'	0	JPRPTPCY	"3" POLICYLIB type concat
14	(E)	BITSTRING	2		Reserved
16	(10)	SIGNED	2	JPRDSCNT	Number of data sets in concatenation
18	(12)	SIGNED	2	JPRDUSCT	Concatenation use count
20	(14)	CHARACTER	8	JPRDMVSN	MVS system name
28	(1C)	CHARACTER	8	JPRDSID	JES member name
28	(1C)	X'24'	0	JPRGENSZ	"*-JPRGENI" Size of this section (Internal use only)

Table 177. Structure JPRDSETS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRDSETS	, Data set info data area
0	(0)	ADDRESS	2	JPRDLEN	Length of data set info section
2	(2)	ADDRESS	1	JPRDTYPE	Type of this header
3	(3)	ADDRESS	1	JPRDMOD	Modifier

Table 177. Structure JPRDSETS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	ADDRESS	2	JPRDOFFS	Offset to first info area
6	(6)	SIGNED	2	JPRDNUM	Number of data set areas
8	(8)	ADDRESS	2	JPRDINFL	Length of a data set area
10	(A)	BITSTRING	1	JPRDSTRT(0)	First data set info area (Internal use only)
10	(A)	X'A'	0	JPRDSIZE	"*-JPRDSETS" Length of basic section (Internal use only)

Table 178. Structure JPRDSINF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPRDSINF	, Info for PROCLIB data sets
0	(0)	CHARACTER	44	JPRDDSN	Data set name specified on DD statement, may be an alias or ' * PATH=' if PATH= is specified
44	(2C)	CHARACTER	8	JPRDUNIT	Data set unit
52	(34)	CHARACTER	6	JPRDVOL	Data set VOLSER specified on DD statement, will be blanks if VOLSER is not specified or PATH= is specified
58	(3A)	BITSTRING	1	JPRDFLG1	Data set flags
		1... ....		JPRDALCF	"B'10000000" Allocation failed
		.1.. ....		JPRDOPNE	"B'01000000" OPEN error encountered
		..1. ....		JPRDPTHS	"B'00100000" PATH= specified
		...1 ....		JPRDPTHT	"B'00010000" PATH= value truncated
59	(3B)	BITSTRING	1	JPRDRCFM	Record format (RECFM)
60	(3C)	BITSTRING	2	JPRDLRCL	Record length (LRECL)
62	(3E)	BITSTRING	2	JPRDBLKS	Block size (BLKSIZE)
64	(40)	CHARACTER	44	JPRDXDSN	Actual data set name or blanks if PATH= specified
108	(6C)	CHARACTER	6	JPRDXVOL	Actual data set VOLSER or blanks if PATH= specified
114	(72)	BITSTRING	6		Reserved
114	(72)	X'78'	0	JPRDSLEN	"*-JPRDSINF" Length of area (no PATH) (Internal use only)
120	(78)	CHARACTER	128	JPRDPATH	Specified PATH value
120	(78)	X'F8'	0	JPRDSLNP	"*-JPRDSINF" Length of area (with PATH) (Internal use only)

Table 179. Cross Reference for IAZJPROC

Name	Offset	Hex Tag
JPRCCVRL	B	1
JPRCCVRM	B	0
JPRCFINT	14	8
JPRCFJBC	14	40
JPRCFLOC	14	4
JPRCFLTR	14	0
JPRCFLTS	15	0
JPRCFNAM	14	80

Table 179. Cross Reference for IAZJPROC (continued)

Name	Offset	Hex Tag
JPRCFSTC	14	20
JPRCFTS0	14	10
JPRCFTYP	14	2
JPRCID	0	
JPRCJCLS	24	40404040
JPRCLEN	8	
JPRCLPTR	54	
JPRCMBRN	34	40404040
JPRCMNUM	60	
JPRCMPTR	5C	
JPRCNMBR	58	0
JPRCPNAM	1C	40404040
JPRCSMBR	15	40
JPRCSSYS	15	80
JPRCSTBG	18	
JPRCSTCP	14	
JPRCSTHL	8	
JPRCSTID	0	D1D7D9C3
JPRCSTNX	10	
JPRCSTOR	0	
JPRCSTPL	C	E6
JPRCSTRP	10	
JPRCSTSP	C	0
JPRCSTSZ	18	18
JPRCSTTL	D	
JPRCSVR#	B	100
JPRCSYSN	2C	40404040
JPRCSZE	64	88
JPRCSZE1	64	88
JPRCTYPE	16	0
JPRCVER	A	
JPRCVERL	A	
JPRCVERM	B	
JPRCVERO	C	0
JPRCV010	B	100
JPRDALCF	3A	80
JPRDBLKS	3E	
JPRDDNAM	4	40404040
JPRDDSN	0	

Table 179. Cross Reference for IAZJPROC (continued)

Name	Offset	Hex Tag
JPRDFLG1	3A	
JPRDINFL	8	
JPRDLEN	0	
JPRDLRCL	3C	
JPRDMOD	3	
JPRDMVSN	14	40404040
JPRDNUM	6	0
JPRDOFFS	4	
JPRDOPNE	3A	40
JPRDPATH	78	
JPRDPTHS	3A	20
JPRDPTHT	3A	10
JPRDRCFM	3B	
JPRDSCNT	10	0
JPRDSETS	0	
JPRDSID	1C	40404040
JPRDSINF	0	
JPRDSIZE	A	A
JPRDSLEN	72	78
JPRDSLNP	78	F8
JPRDSTRT	A	
JPRDTYPE	2	
JPRDUNIT	2C	
JPRDUSCT	12	0
JPRDVOL	34	
JPRDXDSN	40	
JPRDXVOL	6C	
JPREYE	0	D1D7D9C8
JPRFLAG1	C	0
JPRGENI	0	
JPRGENSZ	1C	24
JPRGLN	0	24
JPRGMD	3	
JPRGTY	2	
JPRHDR	0	
JPRHDSZ	10	14
JPRIDGEN	10	1
JPRIDPRF	10	0
JPRIMDSN	10	1

Table 179. Cross Reference for IAZJPROC (continued)

Name	Offset	Hex Tag
JPRIMGEN	10	0
JPRJPLEX	10	
JPRNXTP	C	
JPROC	0	
JPROPRF	8	14
JPRPREF	0	
JPRPRLN	0	
JPRPRMD	3	
JPRPRSZ	3	4
JPRPRTPT	2	
JPRPTPCY	D	3
JPRPTPRC	D	1
JPRPTSTM	D	2
JPRPTYPE	D	0
JPRP1NMV	C	8
JPRP1PTH	C	10
JPRP1STA	C	80
JPRP1STC	C	40
JPRP1TS0	C	20
JPRTPLCY	16	3
JPRTPROC	16	1
JPRTSBMT	16	2
JPSHDR	0	
JPSHEYE	0	D1D7D9C3
JPSHNEXT	C	
JPSHOHDR	8	10
JPSHSIZE	C	10

## IAZJPSPL information

### IAZJPSPL programming interface information

The following fields are **NOT** programming interface information:

- JPSPSTBG
- JPSPSTCP
- JPSPSTHL
- JPSPSTID
- JPSPSTNX
- JPSPSTOR
- JPSPSTPL

- JPSPSTRP
- JPSPSTSP
- JPSPSTTL
- JPSPUSER
- SPEGENIS
- SPEHDSZ
- SPEJ2AES
- SPEJ2AIS
- SPEJ2IS
- SPEJ2MIS
- SPEJ3IS
- SPPGENSZ
- SPPHDSZ
- SPPJ3SIZ

## IAZJPSPPL heading information

<b>Common name:</b>	JES Spool Information Parameter List
<b>Macro ID:</b>	IAZJPSPPL
<b>DSECT name:</b>	JPSPL
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'JPSPOLD' Offset: JPSPSSID Length: L'JPSPSSID
<b>Storage attributes:</b>	Subpool: Parameter List = Subpool of Caller Output Data = Subpool 230 Key: Parameter List = Key of Caller Output Data = Key 1 Residency: Virtual = 31 bit private storage Real = 64 bit private storage
<b>Size:</b>	See JPSPSZE
<b>Created by:</b>	caller of SSI function 'SSOBSSJP' = 82
<b>Pointed to by:</b>	SSJPUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by programs to request Spool Data from the JES subsystem.

## IAZJPSPPL mapping

Table 180. Structure JPSPL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPSPL	
0	(0)	CHARACTER	8	JPSPSSID	I.Eye catcher
8	(8)	ADDRESS	2	JPSPLEN	I.Length of JPSPL parameter list

Table 180. Structure JPSPPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>There are two 2 byte versions for this SS0B extension. JPSPVER is the version provided by the caller. They indicate the level of the control block passed to the service. As new input fields are added to the service, the caller provided version indicates what the service is to consider valid.</p> <p>JPSPVER0 is the version information returned from the service. This implies what fields the service actually examined and what data is returned. If the service is at a level higher than the level of the caller, JPSPVER0 may be higher than JPSPVER. In this case, only the fields valid at the JPSPVER level are actually examined or set.</p> <p>The 2 bytes of version information is a 1 byte level number (changed only when a new release adds significant function) and a 1 byte modifier (changed only when function is added via service).</p>					
10	(A)	SIGNED	2	JPSPVER(0)	I.SS0B version
10	(A)	ADDRESS	1	JPSPVERL	I.SS0B version level
11	(B)	ADDRESS	1	JPSPVERM	I.SS0B version modifier
11	(B)	BITSTRING	0	JPSPV010	"X'0100'" Initial version number of IAZJPSPPL.
11	(B)	BITSTRING	0	JPSPV011	"X'0101'" Active volume info.
11	(B)	BITSTRING	0	JPSPV020	"X'0200'" SP00L Migration, additional active volume info.
11	(B)	BITSTRING	0	JPSPV021	"X'0201'" SP00L migration, SP00L migration planning data - may be optional
11	(B)	BITSTRING	0	JPSPSVR#	"X'0201'" Service version number of IAZJPSPPL - Latest Version
11	(B)	X'2'	0	JPSPCVRL	"2" Current version level
11	(B)	X'1'	0	JPSPCVRM	"1" Current version modifier
12	(C)	SIGNED	2	JPSPVER0	0.Subsystem version/modifier
14	(E)	BITSTRING	2		Reserved.
16	(10)	SIGNED	4	JPSPUSER(0)	Placeholder. Do not use.
<p>JPSPSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SS0B extension is used and from that point on it will be managed by the subsystem.</p>					
16	(10)	ADDRESS	4	JPSPSTRP	Storage management anchor
<p>Begin input-only fields.</p> <p>NOTES: - Many of the filters only apply to JES2 or JES3. Each filter is denoted with what applies.</p>					
20	(14)	BITSTRING	1	JPSPPARF	IS.Partition Filters
		1... ....		JPSPFULL	"B'10000000'" Spool Partition is FULL (J3)
		.1.. ....		JPSPPNM	"B'01000000'" Use JPSPPNAM (partition name) as a filter (J3)
		..1. ....		JPSPALD	"B'00100000'" Partition Allocation Allowed (J3)
		...1 ....		JPSPNALD	"B'00010000'" Partition Allocation Not Allowed (J3)
		.... 1...		JPSPLFTP	"B'00001000'" This partition is the default (J3)



Table 180. Structure JPSPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		JPSPIDTA	"B'00000100'" Initialization data exists on this partition (J3)
		.... ..1.		JPSPNOVF	"B'00000010'" This partition cannot overflow (J3)
		.... ...1		JPSPPOVF	"B'00000001'" At least one other partition overflows into this one (J3)
		1111 1111		JPSPPAR3	"B'11111111'" All JES3 partition filters
21	(15)	BITSTRING	1	JPSPEFL1	IS.Extent Status Filters. Note that the status filters are an OR'ed group which are AND'ed with the other filters.
		1... ....		JPSPACT	"B'10000000'" Extent Active (J2 & J3)
		.1.. ....		JPSPSTRT	"B'01000000'" Extent Starting (J2)
		..1. ....		JPSPDRN	"B'00100000'" Extent Draining (J2 & J3)
		...1 ....		JPSPHALT	"B'00010000'" Extent Halting (J2)
		.... 1...		JSPINAC	"B'00001000'" Extent Inactive (J2)
		.... .1..		JSPPHLD	"B'00000100'" Extent Held (J3)
		.... ..1.		JSPBADT	"B'00000010'" Extent Bad Track (J3)
		.... ...1		JSPSTTT	"B'00000001'" Extent STT (J3)
		1111 1...		JSPASJ2	"B'11111000'" All JES2 Status filters set.
		1.1. .111		JSPASJ3	"B'10100111'" All JES3 Status filters.
22	(16)	BITSTRING	1	JPSPEFL2	IS.Extent Filters
		1... ....		JPSPEXI	"B'10000000'" Use JPSPEXTI (extent ID) as a filter (J2 & J3)
		.1.. ....		JPSPTGU	"B'01000000'" Use JPSPTGUT (track group utilization) as a filter (J2)
		..1. ....		JPSPTGM	"B'00100000'" Use JPSPTGMN (minimum total Track groups) as a filter (J2)
		...1 ....		JPSPAMB	"B'00010000'" Use JPSPAMBR (JES2 affinity member name) as a filter (J2)
		.... 1...		JPSPASYS	"B'00001000'" Use JPSPASYS (JES2 affinity MVS system name) as a filter (J2)
		1... ....		JPSPEF23	"B'10000000'" All JES3 filters in JPSPEFL2
23	(17)	BITSTRING	1	JPSPEFL3	IS.Extent Status Filters #2 Note that the status filters are an OR'ed group which are AND'ed with the other filters
		1... ....		JSPXTND	"B'10000000'" Extent Extending (J2)
		.1.. ....		JSPMIGR	"B'01000000'" Extent Migrating (J2)
		..1. ....		JSPMAPP	"B'00100000'" Extent Mapped (J2)
		111. ....		JPSPEF32	"B'11100000'" JES2 filters in JPSPEFL3
24	(18)	BITSTRING	1	JPSPFGL1	IS.Extent selection Flag:
		1... ....		JSP1MGR	"B'10000000'" Migration planning info is not returned (J2)
25	(19)	BITSTRING	3		Reserved.

Table 180. Structure JPSPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
NOTE: Each filter below is enabled via one of the bit settings in JPSPEFL2					
28	(1C)	CHARACTER	8	JPSPPNAM	IS*.Partition Name filter. See JPSPPNM bit. (J3)
36	(24)	CHARACTER	8	JPSPEXTI	IS*.Extent Identifier Filter. This is the Volume Name in JES2 and the DDNAME in JES3. See JPSPEXI bit. (J2 & J3)
44	(2C)	CHARACTER	8	JPSPAMBR	IS*.JES2 Affinity member Name Filter. See JPSPAMB bit. (J2)
52	(34)	CHARACTER	8	JPSPASYS	IS*.JES2 Affinity MVS System Name Filter. See JPSPASY bit. (J2)
60	(3C)	SIGNED	4	JPSPTGUT	IS. Track Group utilization Filter. A percentage value from 1 to 100 is specified. Only extents with equal or greater utilization than the percentage value will be returned. See JPSPTGU bit. (J2)
64	(40)	SIGNED	4	JPSPTGMN	IS. Minimum Number of Track Groups Filter. Only extents with equal or greater total TGs than the minimum value specified will be returned. See the the JPSPTGM bit (J2)
68	(44)	SIGNED	4	(10)	Reserved for future use
Begin output-only fields.					
108	(6C)	ADDRESS	4	JPSPLPTR	0.Pointer to first Partition (SPPHDR) data buffer. See output data discussion below for layout.
112	(70)	SIGNED	4	JPSNPAPR	0.Number of Partition (SPPHDR) data buffers returned.
116	(74)	SIGNED	4		Reserved for future use
120	(78)	SIGNED	8	JPSPTGT	0.Total Track Groups - Partition Rollup.
128	(80)	SIGNED	8	JPSPTGIU	0.Total Track Groups In Use - Partition Rollup.
136	(88)	SIGNED	8	JPSPTKT	0.Total Tracks - Partition Rollup
144	(90)	SIGNED	8	JPSPTKU	0.Total Tracks In Use - Partition Rollup.
152	(98)	SIGNED	8	JPSPTGAT	0.Total Active Track Groups - Partition Rollup.
160	(A0)	SIGNED	8	JPSPTGAI	0.Total Active Track Groups In Use -Partition Rollup
168	(A8)	SIGNED	8	JPSPTKAT	0.Total Active Tracks - Partition Rollup
176	(B0)	SIGNED	8	JPSPTKAU	0.Total Active Tracks In Use - Partition Rollup.
184	(B8)	SIGNED	4	(2)	Reserved for future use
184	(B8)	X'C0'	0	JSPSPZE1	"*-JPSPL" Fix parameter End: Ver 1
184	(B8)	X'C0'	0	JSPSPZE2	"*-JPSPL" Fix parameter End: Ver 2
184	(B8)	X'C0'	0	JSPSPZE	"*-JPSPL" JPSPL Current version fixed parameter length

Table 181. Structure JPSPSTOR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JPSPSTOR	, Storage management DSECT
0	(0)	CHARACTER	8	JPSPSTID	Eyecatcher
8	(8)	ADDRESS	2	JPSPSTHL	Length of header area
10	(A)	ADDRESS	2		Reserved for future use
12	(C)	BITSTRING	1	JPSPSTSP	Subpool of area
12	(C)	X'E6'	0	JPSPSTPL	"230" Recommended subpool to use
13	(D)	ADDRESS	3	JPSPSTTL	Total length of area (this includes the header)
16	(10)	ADDRESS	4	JPSPSTNX	Pointer to next area
20	(14)	ADDRESS	4	JPSPSTCP	Pointer to 1st available byte in this area
24	(18)	ADDRESS	4	JPSPSTBG(0)	Start of data area

Table 182. Structure SPPHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPPHDR	, Partition Header Section
0	(0)	CHARACTER	8	SPPEYE	Eye catcher
8	(8)	ADDRESS	2	SPPOPRF	Offset to prefix section
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	SPPNXTP	Address of next Partition
16	(10)	ADDRESS	4	SPPFRSTE	Address of first extent
20	(14)	ADDRESS	4		Reserved for future use
20	(14)	X'18'	0	SPPHDSZ	"*-SPPHDR" Size of this section
Spool Partition Section Identifiers					
	.... ....			SPPIDPRF	"X'00'" Partition Info - Prefix
	.... ...1			SPPIDGEN	"X'01'" Partition Info - General
	.... ..11			SPPIDJS3	"X'03'" Partition Info - JES3
Spool Partition Section Modifiers					
	.... ....			SPPIMGEN	"X'00'" Modifier - General

Table 183. Structure SPPPPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPPPPREF	, Spool Partition Prefix
0	(0)	ADDRESS	2	SPPPRLN	Length of entire Partition entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	SPPPRTP	Type = Prefix Section
3	(3)	ADDRESS	1	SPPPRMD	Type Mod = General
3	(3)	X'4'	0	SPPPRSZ	"*-SPPPPREF" Size of this section

Table 184. Structure SPPGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPPGENI	, Spool partition General Information.

Table 184. Structure SPPGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	ADDRESS	2	SPPGLN	Length of this section
2	(2)	ADDRESS	1	SPPGTY	Type = General Info
3	(3)	ADDRESS	1	SPPGMD	Type Mod = General
4	(4)	SIGNED	4		Reserved for future use
8	(8)	CHARACTER	8	SPPGNM	Partition Name ( blank for JES2, set for JES3 ).
16	(10)	SIGNED	8	SPPGTGT	Total Track Groups - Extent Rollup.
24	(18)	SIGNED	8	SPPGTGU	Total Track Groups In Use - Extent Rollup.
32	(20)	SIGNED	8	SPPGTKT	Total Tracks - Extent Rollup
40	(28)	SIGNED	8	SPPGTKU	Total Tracks In Use - Extent Rollup.
48	(30)	BITSTRING	1	SPPGFLG1	Partition Indicators:
		1... ....		SPPGNSPC	"B'10000000'" ON = No free space currently exists in the partition.
		.1.. ....		SPPGACTV	"B'01000000'" ON = Active extents exist in the partition.
		..1. ....		SPPGALOC	"B'00100000'" ON = Some extents have space available that isn't currently utilized ( for JES2, some extents are 'stunted' ).
49	(31)	BITSTRING	7		Reserved for future use
56	(38)	SIGNED	8	SPPGTGAT	Total Active Track Groups - Extent Rollup.
64	(40)	SIGNED	8	SPPGTGAU	Total Active Track Groups In Use - Extent Rollup.
72	(48)	SIGNED	8	SPPGTKAT	Total Active Tracks - Extent Rollup
80	(50)	SIGNED	8	SPPGTKAU	Total Active Tracks In Use - Extent Rollup.
80	(50)	X'58'	0	SPPGENSZ	"*-SPPGENI" Size of this section

Table 185. Structure SPPJES3I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPPJES3I	, Spool partition JES3 specific Information
0	(0)	ADDRESS	2	SPP3LN	Length of this section
2	(2)	ADDRESS	1	SPP3TY	Type = JES3 Info
3	(3)	ADDRESS	1	SPP3MD	Type Mod = General
4	(4)	CHARACTER	8	SPP3OPAR	Overflow partition Name.
12	(C)	BITSTRING	1	SPP3STSF	Partition Status Flags
		1... ....		SPP3ALD	"B'10000000'" Partition Allocation Allowed
		.1.. ....		SPP3DFTP	"B'01000000'" This partition is the default
		..1. ....		SPP3IDTA	"B'00100000'" Initialization data exists on this partition
		...1 ....		SPP3OVER	"B'00010000'" This partition has overflowed into another partition
		.... 1...		SPP3POVI	"B'00001000'" At least 1 other partition may overflow into this partition.
		.... .1..		SPP3POVO	"B'00000100'" This partition may overflow into another partition.

Table 185. Structure SPPJES3I (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
13	(D)	BITSTRING	1	SPP3THRF	Partition Threshold Flags
		1... ....		SPP3MRG	"B'10000000'" Marginal threshold exceeded
		.1... ....		SPP3MIN	"B'01000000'" Minimal threshold exceeded
14	(E)	BITSTRING	1	SPP3MRGP	Marginal SLIM threshold percentage
15	(F)	BITSTRING	1	SPP3MINP	Minimal SLIM threshold percentage
16	(10)	BITSTRING	4		Reserved for future use
16	(10)	X'14'	0	SPPJ3SIZ	"*-SPPJES3I" Size of this section

Table 186. Structure SPEHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPEHDR	, Extent Header Section
0	(0)	CHARACTER	8	SPEEYE	Eye catcher
8	(8)	ADDRESS	2	SPEOPRF	Offset to extent prefix section.
10	(A)	BITSTRING	2		Reserved for future use
12	(C)	ADDRESS	4	SPENXTE	Address of next Extent header
16	(10)	ADDRESS	4		Reserved for future use
16	(10)	X'14'	0	SPEHDSZ	"*-SPEHDR" Size of this section
Spool Extent Section Identifiers					
		1... ....		SPEIDPRF	"X'80'" Extent Info - Prefix
		1... ..1		SPEIDGEN	"X'81'" Extent Info - General
		1... ..1.		SPEIDJS2	"X'82'" Extent Info - JES2
		1... ..11		SPEIDJS3	"X'83'" Extent Info - JES3
Spool Extent Section Modifiers					
		1... ....		SPEIMGEN	"X'80'" Modifier - General
		1... ..1.		SPEIMJ2A	"X'82'" Modifier - JES2 Affinity
		1... ..11		SPEIMJ2M	"X'83'" Modifier - JES2 Active SP00L Migration

Table 187. Structure SPEPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPEPREF	, Spool Extent Prefix
0	(0)	ADDRESS	2	SPEPRLN	Length of entire Extent entry (Max value is 65535) returned - other than hdr
2	(2)	ADDRESS	1	SPEPRTP	Type = Prefix Section
3	(3)	ADDRESS	1	SPEPRMD	Type Mod = General
3	(3)	X'4'	0	SPEPRSZ	"*-SPEPREF" Size of this section

Table 188. Structure SPEGENI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPEGENI	, Spool extent General Information.
0	(0)	ADDRESS	2	SPEGLN	Length of this section

Table 188. Structure SPEGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2	(2)	ADDRESS	1	SPEGTY	Type = General Info
3	(3)	ADDRESS	1	SPEGMMD	Type Mod = General
4	(4)	CHARACTER	12	SPEGSTS	Extent Status string. The following are examples of what this field can contain: - 'ACTIVE ' - 'ACTIVE-RSVD ' - 'STARTING ' - 'HALTING ' - 'DRAINING ' - 'INACTIVE ' - 'HELD ' (JES3 ONLY) - 'EXTENDING ' - 'MIGRATING ' - 'MAPPED '
16	(10)	SIGNED	1	SPEGSTSB	Extent Status byte. Contains one of the following values that will match the Extent Status string above:
16	(10)	X'1'	0	SPEGACT	"1" - ACTIVE Status
16	(10)	X'2'	0	SPEGSTRT	"2" - STARTING Status
16	(10)	X'3'	0	SPEGHALT	"3" - HALTING Status
16	(10)	X'4'	0	SPEGDRN	"4" - DRAINING Status
16	(10)	X'5'	0	SPEGINAC	"5" - INACTIVE Status
16	(10)	X'6'	0	SPEGHELD	"6" - HELD Status (JES3 ONLY)
16	(10)	X'7'	0	SPEGXTND	"7" - EXTENDING Status
16	(10)	X'8'	0	SPEGMIGR	"8" - MIGRATING Status
16	(10)	X'9'	0	SPEGMAPP	"9" - MAPPED Status
17	(11)	BITSTRING	1	SPEGFLG1	Extent General Status Flags
		1... ....		SPEGNRML	"B'10000000" ON = Extent in 'normal' (ACTIVE) status.
		.1... ....		SPEGRSVD	"B'01000000" ON = Extent is 'Reserved' meaning it is selectable but not allocatable
		..1. ....		SPEGNSEL	"B'00100000" ON = Work on this extent is not selectable
18	(12)	BITSTRING	1	SPEGPERC	Percent complete for command in progress, if available
19	(13)	BITSTRING	1		Reserved
20	(14)	CHARACTER	8	SPEGEXTI	Extent Identifier. This is the Volume Name in JES2 and the DDNAME in JES3.
28	(1C)	CHARACTER	44	SPEGDSNM	Data Set Name on which this extent physically resides
72	(48)	SIGNED	8	SPEGTGT	Total Track Groups
80	(50)	SIGNED	8	SPEGTGU	Total Track Groups In Use
88	(58)	SIGNED	8	SPEGTTRK	Total Tracks
96	(60)	SIGNED	8	SPEGTTKU	Total Tracks In Use
104	(68)	ADDRESS	4	SPEGLCYL	Low Cylinder. Note that this is a 'normalized' value (cccCC).
108	(6C)	ADDRESS	4	SPEGLHED	Low Head
112	(70)	CHARACTER	6	SPEGLMTR	Low MQTR value for JES2 Low MMRRRR value for JES3
112	(70)	X'70'	0	SPEGLMM	"SPEGLMTR,2" Defines JES3 extent number
112	(70)	X'72'	0	SPEGLRRN	"SPEGLMTR+2,4" Defines JES3 record number
118	(76)	BITSTRING	2		Reserved
120	(78)	ADDRESS	4	SPEGHCYL	High Cylinder. Note that this is a 'normalized' value (cccCC).
124	(7C)	ADDRESS	4	SPEGHED	High Head

Table 188. Structure SPEGENI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
128	(80)	CHARACTER	6	SPEGHMTR	High MQTR value for JES2 High MMRRRR value for JES3
128	(80)	X'80'	0	SPEGHMM	"SPEGHMTR,2" Defines JES3 extent number
128	(80)	X'82'	0	SPEGHRRN	"SPEGHMTR+2,4" Defines JES3 record number
134	(86)	BITSTRING	2		Reserved
136	(88)	ADDRESS	4	SPEGTPCY	Tracks Per Cylinder
140	(8C)	ADDRESS	2	SPEGRPTK	Records Per Track
142	(8E)	ADDRESS	2	SPEGTPTG	Tracks Per Track Group
144	(90)	ADDRESS	2	SPEGEXTN	Extent Number
146	(92)	CHARACTER	6	SPEGVSER	VOLSER where this extent's data set resides
152	(98)	SIGNED	8	SPEGLTRK	Low Track Number
160	(A0)	SIGNED	8	SPEGHTRK	High Track Number
160	(A0)	X'A8'	0	SPEGENIS	"*-SPEGENI" Size of this section

Table 189. Structure SPEJ2I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPEJ2I	, Spool Extent JES2 specific Information
0	(0)	ADDRESS	2	SPE2LN	Length of this section
2	(2)	ADDRESS	1	SPE2TY	Type = JES2 Info
3	(3)	ADDRESS	1	SPE2MD	Type Mod = General
4	(4)	CHARACTER	12	SPE2CMD	Current Command string. The following are examples of what this field can contain: - 'START ' - 'FORMAT ' - 'HALT ' - 'DRAIN ' - 'EXTEND ' - 'MIGRATE ' - blank if no active command.
16	(10)	SIGNED	1	SPE2CMDB	Current Command byte. Contains one of the following values that will match the Current Command string above:
16	(10)	X'0'	0	SPE2NCMD	"0" - No Command Active
16	(10)	X'1'	0	SPE2STRT	"1" - START command
16	(10)	X'2'	0	SPE2FRMT	"2" - FORMAT commands
16	(10)	X'3'	0	SPE2HALT	"3" - HALT command
16	(10)	X'4'	0	SPE2DRN	"4" - DRAIN command
16	(10)	X'5'	0	SPE2XTND	"5" - EXTEND command
16	(10)	X'6'	0	SPE2MIGR	"6" - MIGRATE command
17	(11)	BITSTRING	1	SPE2FLG1	Extent Status Indicators:
		1... ....		SPE2STNT	"B'10000000" Stunted Indicator: ON = This extent is stunted.
		.1.. ....		SPE2ALLM	"B'01000000" All members Have Affinity: ON = ALL members have affinity to this volume. The Affinity Array sections do NOT exist. OFF = SOME members have affinity to this volume. The Affinity Array sections DO exist.
		..1. ....		SPE2MAPT	"B'00100000" This extent is a target of MAPPED extents

Table 189. Structure SPEJ2I (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		SPE2ACTM	"B'00010000'" This extent is either the source or target of an active migration. Section SPEJ2MI has the details.
18	(12)	BITSTRING	6		Reserved
24	(18)	SIGNED	8	SPE2LFTK	Largest number of contiguous free tracks
32	(20)	SIGNED	8	SPE2HTRK	Highest used track relative to the start of the data set
40	(28)	CHARACTER	8	SPE2TARG	Target Extent Identifier. This is the Volume Name in JES2 where this extent is migrating to/has migrated to.
40	(28)	X'30'	0	SPEJ2IS	"*-SPEJ2I" Size of this section

Table 190. Structure SPEJ2AI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPEJ2AI	, Spool Extent JES2 Affinity specific Information
0	(0)	ADDRESS	2	SPE2ALN	Length of this section
2	(2)	ADDRESS	1	SPE2ATY	Type = JES2 Info
3	(3)	ADDRESS	1	SPE2AMD	Type Mod = JES2 Affinity
4	(4)	ADDRESS	2	SPE2ANUM	Number of entries in the Affinity Array. Note that this can be ZERO in situations when no members match the selection filters.
6	(6)	ADDRESS	2	SPE2ALEN	Length of an entry in the Affinity Array
6	(6)	X'8'	0	SPEJ2AIS	"*-SPEJ2AI" Size of this section

Table 191. Structure SPEJ2AE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPEJ2AE	, Spool Extent JES2 Affinity Array Entry
0	(0)	CHARACTER	8	SPE2EMBR	JES2 member Name
8	(8)	CHARACTER	8	SPE2ESYS	MVS System Name
8	(8)	X'10'	0	SPEJ2AES	"*-SPEJ2AE" Size of a JES2 Affinity Array Entry

Table 192. Structure SPEJ2MI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPEJ2MI	, Spool Extent Active Migration JES2 specific information
0	(0)	ADDRESS	2	SPE2MLN	Length of this section
2	(2)	ADDRESS	1	SPE2MTY	Type = JES2 Info
3	(3)	ADDRESS	1	SPE2MMD	Type Mod = JES2 Migration
4	(4)	BITSTRING	1	SPE2MFG1	Extent Active Migration Indicators
		1... ....		SPE2M1SR	"B'10000000'" Extent is source of migration
		.1.. ....		SPE2M1TG	"B'01000000'" Extent is target of migration
		..1. ....		SPE2M1MV	"B'00100000'" MOVE migration



Table 192. Structure SPEJ2MI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		SPE2M1MG	"B'00010000'" MERGE migration
		.... 1...		SPE2NCAN	"B'00001000'" Migration cannot be cancelled
		.... .1..		SPE2MERR	"B'00000100'" Migration failed and is being cleaned up
The following fields are only valid if SPE2M1SR is ON. They document where the source extent is migrating to.					
5	(5)	CHARACTER	12	SPE2MPH	Migration Phase string. The following indicate what this field can contain: - 'PENDING ' - 'INITIALIZING' - 'SETUP ' - 'COPY ' - 'CATCHUP ' - 'CANCEL ' - 'BACKOUT ' - 'CLEANUP ' - blank if no active migration phase
17	(11)	SIGNED	1	SPE2MPHB	Migration phase byte. Contains one of the following values that will match the Migration Phase string above:
17	(11)	X'0'	0	SPE2NOMG	"0" - No Migration active
17	(11)	X'A'	0	SPE2MPND	"10" - PENDING phase
17	(11)	X'14'	0	SPE2MINI	"20" - INITIALIZING phase
17	(11)	X'1E'	0	SPE2MSET	"30" - SETUP phase
17	(11)	X'28'	0	SPE2MCPY	"40" - COPY phase
17	(11)	X'32'	0	SPE2MCUP	"50" - CATCHUP phase
17	(11)	X'3C'	0	SPE2MCAN	"60" - CANCEL phase
17	(11)	X'46'	0	SPE2MBAK	"70" - BACKOUT phase
17	(11)	X'50'	0	SPE2MCLN	"80" - CLEANUP phase
18	(12)	CHARACTER	8	SPE2MMGR	Migrator JES2 MAS member name
26	(1A)	CHARACTER	6	SPE2MVSR	Target extent VOLSER where the current extent is migrating to
32	(20)	CHARACTER	44	SPE2MDSN	Target extent SP00L data set name where the current extent is migrating to
32	(20)	X'4C'	0	SPEJ2MIS	"*-SPEJ2MI" Size of this section

Table 193. Structure SPEJ3I

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPEJ3I	, Spool Extent JES3 specific Information
0	(0)	ADDRESS	2	SPE3LN	Length of this section
2	(2)	ADDRESS	1	SPE3TY	Type = JES3 Info
3	(3)	ADDRESS	1	SPE3MD	Type Mod = General
4	(4)	ADDRESS	2	SPE3RCSZ	Extent record size
6	(6)	BITSTRING	1	SPE3FLG1	Extent Status Indicators:
		1... ....		SPE3STRK	"B'10000000'" ON = Single Track Table
		.1.. ....		SPE3BTRK	"B'01000000'" ON = Contains bad track
7	(7)	BITSTRING	1		Reserved for future use
7	(7)	X'8'	0	SPEJ3IS	"*-SPEJ3I" Size of this section

Table 194. Cross Reference for IAZJP SPL

Name	Offset	Hex Tag
JPSPACT	15	80
JPSPALD	14	20
JPSPAMB	16	10
JPSPAMBR	2C	
JPSPASJ2	15	F8
JPSPASJ3	15	A7
JPSPASY	16	8
JPSPASYS	34	
JPSPBADT	15	2
JPSPCVRL	B	2
JPSPCVRM	B	1
JPSPDRN	15	20
JPSPEFL1	15	
JPSPEFL2	16	
JPSPEFL3	17	
JPSPEF23	16	80
JPSPEF32	17	E0
JPSPEXI	16	80
JPSPEXTI	24	
JPSPFLG1	18	
JPSPFULL	14	80
JPSPHALT	15	10
JPSPHLD	15	4
JPSPIDTA	14	4
JPSPINAC	15	8
JP SPL	0	
JP SPLEN	8	
JP SPLFTP	14	8
JP SPLPTR	6C	
JPSPMAPP	17	20
JPSPMIGR	17	40
JPSPNALD	14	10
JPSPNOVF	14	2
JPSPNPAR	70	
JPSPPARF	14	
JPSPPAR3	14	FF
JPSPPNAM	1C	
JPSPPNM	14	40
JPSPPOVF	14	1

Table 194. Cross Reference for IAZJPSP (continued)

Name	Offset	Hex Tag
JPSPSSID	0	
JPSPSTBG	18	
JPSPSTCP	14	
JPSPSTHL	8	
JPSPSTID	0	D1D7E2D7
JPSPSTNX	10	
JPSPSTOR	0	
JPSPSTPL	C	E6
JPSPSTRP	10	
JPSPSTRT	15	40
JPSPSTSP	C	
JPSPSTT	15	1
JPSPSTTL	D	
JPSPSVR#	B	201
JPSPSIZE	B8	C0
JPSPSIZE1	B8	C0
JPSPSIZE2	B8	C0
JPSPTGAI	A0	0
JPSPTGAT	98	0
JPSPTGIU	80	0
JPSPTGM	16	20
JPSPTGMN	40	0
JPSPTGT	78	0
JPSPTGU	16	40
JPSPTGUT	3C	0
JPSPTKAT	A8	0
JPSPTKAU	B0	0
JPSPTKT	88	0
JPSPTKU	90	0
JPSPUSER	10	
JPSPVER	A	
JPSPVERL	A	
JPSPVERM	B	
JPSPVERO	C	0
JPSPV010	B	100
JPSPV011	B	101
JPSPV020	B	200
JPSPV021	B	201
JPSPXTND	17	80

Table 194. Cross Reference for IAZJPSP (continued)

Name	Offset	Hex Tag
JPSP1MGR	18	80
SPEEYE	0	E2D7D6D6
SPEGACT	10	1
SPEGDRN	10	4
SPEGDSNM	1C	
SPEGENI	0	
SPEGENIS	A0	A8
SPEGEXTI	14	
SPEGEXTN	90	
SPEGFLG1	11	
SPEGHALT	10	3
SPEGHCYL	78	
SPEGHELD	10	6
SPEGHHED	7C	
SPEGHMM	80	80
SPEGHMTR	80	
SPEGHRRN	80	82
SPEGHTRK	A0	0
SPEGINAC	10	5
SPEGLCYL	68	
SPEGLHED	6C	
SPEGLMM	70	70
SPEGLMTR	70	
SPEGLN	0	A8
SPEGLRRN	70	72
SPEGLTRK	98	0
SPEGMAPP	10	9
SPEGMD	3	
SPEGMIGR	10	8
SPEGNRML	11	80
SPEGNSEL	11	20
SPEGPERC	12	
SPEGRPTK	8C	
SPEGRSVD	11	40
SPEGSTRT	10	2
SPEGSTS	4	
SPEGSTSB	10	
SPEGTGT	48	0
SPEGTGU	50	0

Table 194. Cross Reference for IAZJPSPL (continued)

Name	Offset	Hex Tag
SPEGTPCY	88	
SPEGTPTG	8E	
SPEGTTKU	60	0
SPEGTTRK	58	0
SPEGTY	2	
SPEGVSER	92	
SPEGXTND	10	7
SPEHDR	0	
SPEHDSZ	10	14
SPEIDGEN	10	81
SPEIDJS2	10	82
SPEIDJS3	10	83
SPEIDPRF	10	80
SPEIMGEN	10	80
SPEIMJ2A	10	82
SPEIMJ2M	10	83
SPEJ2AE	0	
SPEJ2AES	8	10
SPEJ2AI	0	
SPEJ2AIS	6	8
SPEJ2I	0	
SPEJ2IS	28	30
SPEJ2MI	0	
SPEJ2MIS	20	4C
SPEJ3I	0	
SPEJ3IS	7	8
SPENXTE	C	
SPEOPRF	8	14
SPEPREF	0	
SPEPRLN	0	
SPEPRMD	3	
SPEPRSZ	3	4
SPEPRTTP	2	
SPE2ACTM	11	10
SPE2ALEN	6	
SPE2ALLM	11	40
SPE2ALN	0	8
SPE2AMD	3	
SPE2ANUM	4	

Table 194. Cross Reference for IAZJPSP (continued)

Name	Offset	Hex Tag
SPE2ATY	2	
SPE2CMD	4	
SPE2CMDB	10	
SPE2DRN	10	4
SPE2EMBR	0	
SPE2ESYS	8	
SPE2FLG1	11	
SPE2FRMT	10	2
SPE2HALT	10	3
SPE2HTRK	20	0
SPE2LFTK	18	0
SPE2LN	0	30
SPE2MAPT	11	20
SPE2MBAK	11	46
SPE2MCAN	11	3C
SPE2MCLN	11	50
SPE2MCPY	11	28
SPE2MCUP	11	32
SPE2MD	3	
SPE2MDSN	20	40404040
SPE2MERR	4	4
SPE2MFG1	4	
SPE2MIGR	10	6
SPE2MINI	11	14
SPE2MLN	0	4C
SPE2MMD	3	
SPE2MMGR	12	
SPE2MPH	5	
SPE2MPHB	11	
SPE2MPND	11	A
SPE2MSET	11	1E
SPE2MTY	2	
SPE2MVS	1A	
SPE2M1MG	4	10
SPE2M1MV	4	20
SPE2M1SR	4	80
SPE2M1TG	4	40
SPE2NCAN	4	8
SPE2NCMD	10	0

Table 194. Cross Reference for IAZJPSPL (continued)

Name	Offset	Hex Tag
SPE2NOMG	11	0
SPE2STNT	11	80
SPE2STRT	10	1
SPE2TARG	28	
SPE2TY	2	
SPE2XTND	10	5
SPE3BTRK	6	40
SPE3FLG1	6	
SPE3LN	0	8
SPE3MD	3	
SPE3RCSZ	4	
SPE3STRK	6	80
SPE3TY	2	
SPPEYE	0	E2D7D6D6
SPPFRSTE	10	
SPPGACTV	30	40
SPPGALOC	30	20
SPPGENI	0	
SPPGENSZ	50	58
SPPGFLG1	30	
SPPGLN	0	58
SPPGMD	3	
SPPGNM	8	
SPPGNSPC	30	80
SPPGTGAT	38	0
SPPGTGAU	40	0
SPPGTGT	10	0
SPPGTGU	18	0
SPPGTKAT	48	0
SPPGKAU	50	0
SPPGKT	20	0
SPPGTKU	28	0
SPPGTY	2	
SPPHDR	0	
SPPHDSZ	14	18
SPPIDGEN	14	1
SPPIDJS3	14	3
SPPIDPRF	14	0
SPPIMGEN	14	0

Table 194. Cross Reference for IAZJPSP (continued)

Name	Offset	Hex Tag
SPPJES3I	0	
SPPJ3SIZ	10	14
SPPNXTP	C	
SPP0PRF	8	18
SPPPREF	0	
SPPPRLN	0	
SPPPRMD	3	
SPPPRSZ	3	4
SPPPRTP	2	
SPP3ALD	C	80
SPP3DFTP	C	40
SPP3IDTA	C	20
SPP3LN	0	14
SPP3MD	3	
SPP3MIN	D	40
SPP3MINP	F	0
SPP3MRG	D	80
SPP3MRGP	E	0
SPP30PAR	4	
SPP3OVER	C	10
SPP3POVI	C	8
SPP3POVO	C	4
SPP3STSF	C	
SPP3THRF	D	
SPP3TY	2	

## IAZLGDDF information

### IAZLGDDF programming interface information

IAZLGDDF is a programming interface.

### IAZLGDDF heading information

<b>Common name:</b>	Parameter list used by the EVENTLOG data service IAZLGDT.
<b>Macro ID:</b>	IAZLGDDF
<b>DSECT name:</b>	LGDTPLST
<b>Owning component:</b>	JES2 (SC1BH)
<b>Eye-catcher ID:</b>	'LGDTPLST' Offset: LGDEYE Length: L'LGDEYE



**Storage attributes:** Subpool: determined by caller of the service  
Key: determined by caller of the service  
Residency: Virtual - anywhere is 31-bit storage  
Real - anywhere in 64 bit storage

**Size:** See LGDLEN

**Created by:** IAZLGDDF macro invocation by caller

**Pointed to by:** Register one when branching to IAZLGDT service module

**Serialization:** None required

**Function:** Defines the parameters for issuing a write or read record request. The storage includes the input parameters to the EVENTLOG data service.

## IAZLGDDF mapping

Table 195. Structure LGDTPLST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LGDTPLST	, EVENTLOG data service req
0	(0)	CHARACTER	8	LGDEYE	Eyecatcher
8	(8)	SIGNED	4	LGDLEN	Length of parameter list
12	(C)	BITSTRING	1	LGDFUNC	Function to perform
12	(C)	X'1'	0	LGDWRITE	"1" Write the log record
13	(D)	BITSTRING	1	LGDLEVEL	Level of data requested REQUIRED level (first two bits are OFF)
		.... ....		LGDLREQD	"B'00000000" REQUIRED level
		1... ....		LGDLSTND	"B'10000000" STANDARD level
		.1.. ....		LGDLVERB	"B'01000000" VERBOSE level
		..11 1111		LGDLBADB	"B'00111111" Invalid level bit settings If a new level is defined its corresponding bit in LGDLBADB should be set to 0
14	(E)	BITSTRING	2	LGDRTP	EVENTLOG record type
14	(E)	X'E'	0	LGDRTPPT	"LGDRTP,1,C'A" - record type
14	(E)	X'F'	0	LGDRTPS	"LGDRTP+1,1,C'A" - record subtype
16	(10)	SIGNED	4	LGDDLEN	Length of log data
20	(14)	SIGNED	4	LGDWALEN	Length of user supplied work area. Should be LGSSIZE+length of log data+ length of LGPREFIX in macro IAZLGINF
24	(18)	ADDRESS	8	LGDDATAP	Address of log data
24	(18)	X'1C'	0	LGDDATA4	"LGDDATAP+4,4,C'A" 31-bit part of address
32	(20)	ADDRESS	8	LGDWORDP	Address of work area
32	(20)	X'24'	0	LGDWORD4	"LGDWORDP+4,4,C'A" 31-bit part of address
40	(28)	SIGNED	4	LGDRCTD	Overall return code
		.... ....		LGDRSUCC	"X'00" Successful completion.
		.... .1..		LGDRNOTW	"X'04" Record not written.
		.... 1...		LGDRNOST	"X'08" No storage available for work area
		...1 ....		LGDRBADP	"X'10" Parameter list address or length is zero

Table 195. Structure LGDTPLST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 .1..		LGDRERR	"X'14'" Request not processed due to error
		...1 1...		LGDRBADF	"X'18'" Invalid function requested
		...1 11..		LGDRNACB	"X'1C'" ACB for the data set not found
		..1. ....		LGDRNOUT	"X'20'" Log data pointer or length is zeroes
		..1. .1..		LGDRINWA	"X'24'" Insufficient space in caller supplied work area
		..1. 1...		LGDRMAXL	"X'28'" Log data length > maximum
		..1. 11..		LGDRLHLD	"X'2C'" Local lock already held
		..11 ....		LGDRFRR	"X'30'" FRR active, request failed
		..11 .1..		LGDRBADT	"X'34'" Bad record type
		..11 1...		LGDRBADL	"X'38'" Bad level indicator
		..11 11..		LGDRNAUT	"X'3C'" Not running authorized
		.1.. ....		LGDRABND	"X'40'" ABEND occurred proc request
		.1.. .1..		LGDRRECS	"X'44'" Record type(s) are being suppressed
44	(2C)	SIGNED	4	LGDRREQSZ	Size of user supplied work area required.
44	(2C)	X'30'	0	LGDTPLN	"*-LGDTPLST" Length of LGDTPLST DSECT
44	(2C)	X'7FF0'	0	LGDLRMXL	"32752" Max size log data record
EVENTLOG record types recognized by the EVENTLOG data service IAZLGDT, converted to numeric equivalents					
44	(2C)	X'1'	0	LGDTSMF	"01" SMF record type
44	(2C)	X'2'	0	LGDTSTEP	"02" Step Completion Code record type
44	(2C)	X'3'	0	LGDTTRST	"03" Job restart record type
44	(2C)	X'4'	0	LGDTTRC	"04" Trace record type
44	(2C)	X'5'	0	LGDTUSER	"05" User record type

Table 196. Cross Reference for IAZLGDDF

Name	Offset	Hex Tag
LGDDATAP	18	
LGDDATA4	18	1C
LGDDLLEN	10	
LGDEYE	0	
LGDFUNC	C	
LGDLBADB	D	3F
LGDLLEN	8	
LGDLEVEL	D	
LGDLREQD	D	0
LGDLRMXL	2C	7FF0
LGDLSTND	D	80
LGDLVERB	D	40

Table 196. Cross Reference for IAZLGDDF (continued)

Name	Offset	Hex Tag
LGDRABND	28	40
LGDRBADF	28	18
LGDRBADL	28	38
LGDRBADP	28	10
LGDRBADT	28	34
LGDRREQSZ	2C	
LGDRERR	28	14
LGDRETCD	28	
LGDRFRR	28	30
LGDRINWA	28	24
LGDRLHLD	28	2C
LGDRMAXL	28	28
LGDRNACB	28	1C
LGDRNAUT	28	3C
LGDRNOST	28	8
LGDRNOTW	28	4
LGDRNOUT	28	20
LGDRRECS	28	44
LGDRSUCC	28	0
LGDRTYP	E	
LGDRTYPS	E	F
LGDRTYPT	E	E
LGDTPLN	2C	30
LGDTPLST	0	
LGDTRST	2C	3
LGDTSMF	2C	1
LGDTSTEP	2C	2
LGDTTRC	2C	4
LGDTUSER	2C	5
LGDWALEN	14	
LGDWORKP	20	
LGDWORK4	20	24
LGDWRITE	C	1

## IAZLGINF information

### IAZLGINF programming interface information

IAZLGINF is a programming interface.

## IAZLGINF heading information

**Common name:** JES EVENTLOG record prefix

**Macro ID:** IAZLGINF

**DSECT name:** IAZLGINF

**Owning component:** JES Common (SC141)

**Eye-catcher ID:** none

**Storage attributes:** Subpool: Caller  
Key: Any  
Residency: Virtual and real storage are anywhere.

**Size:** variable

**Created by:** IAZLGDAT invocation

**Pointed to by:** not applicable

**Serialization:** None required

**Function:** This macro maps the prefix of a record written to the EVENTLOG data set. The IAZLGDT service uses this mapping.

## IAZLGINF mapping

Table 197. Structure IAZLGINF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IAZLGINF	
0	(0)	BITSTRING	8	LGPPREFIX(0)	Full EVENTLOG record prefix
0	(0)	BITSTRING	1	LGPLENG	Record prefix length
1	(1)	BITSTRING	2	LGPRLEN	EVENTLOG record length, excluding the prefix
3	(3)	BITSTRING	2	LGPRTYP	EVENTLOG record type
3	(3)	X'3'	0	LGPRTYPT	"LGPRTYP,1,C'A'" - record type
3	(3)	X'4'	0	LGPRTYPS	"LGPRTYP+1,1,C'A'" - record subtype
5	(5)	BITSTRING	1	LGPFFLAG	EVENTLOG record flags REQUIRED record (first two bits are OFF)
		1... ....		LGPISTND	"B'10000000'" STANDARD record
		.1.. ....		LGPIVERB	"B'01000000'" VERBOSE record
6	(6)	BITSTRING	2		Reserved
6	(6)	X'8'	0	LGPRFLN	"*-IAZLGINF" Length of prefix area
6	(6)	X'8'	0	LGPREC	"*" Start of record data
Data set "views" recognized by JES GET processing are converted to these numeric equivalents which are used to filter EVENTLOG records. These numeric values must match the type definitions found in macro IAZLGDDF.					
6	(6)	X'1'	0	LGPRSMF	"01" SMF record type
6	(6)	X'2'	0	LGPRSTEP	"02" Step Completion Code record type
6	(6)	X'3'	0	LGPRRST	"03" Job restart record type
6	(6)	X'4'	0	LGPRTRC	"04" Trace record type
6	(6)	X'5'	0	LGPRUSER	"05" User record type

Table 197. Structure IAZLGINF (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
6	(6)	X'FF'	0	LGPRSFST	"255" SMF STEP records (SMF type 30 subtype 4 records)

Table 198. Cross Reference for IAZLGINF

Name	Offset	Hex	Tag
IAZLGINF	0		
LGPFFLAG	5		
LGPLENG	0		
LGPREC	6		8
LGPPREFIX	0		
LGPRFLN	6		8
LGPRLEN	1		
LGPRRST	6		3
LGPRSFST	6		FF
LGPRSMF	6		1
LGPRSTEP	6		2
LGPRTRC	6		4
LGPRTYP	3		
LGPRTYPS	3		4
LGPRTYPT	3		3
LGPRUSER	6		5
LGPR1STND	5		80
LGPR1VERB	5		40

## IAZLGRST information

### IAZLGRST programming interface information

IAZLGRST is a programming interface.

### IAZLGRST heading information

<b>Common name:</b>	EVENTLOG RESTART record format
<b>Macro ID:</b>	IAZLGRST
<b>DSECT name:</b>	RSTREC
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	RESTART Offset: 0 Length: 8

**Storage attributes:** Subpool: 230  
Key: 1  
Residency: Virtual and Real storage are anywhere (above or below 16M) in the private storage of the address space of the task that is currently running in the JES2 code.

**Size:** See RSTRECSZ equate

**Created by:** 1) Job termination when a job will be re-enqueued  
2) Job selection when a job starts executing after being re-enqueued

**Pointed to by:** N/A

**Serialization:** PUT serialization

**Function:** This DSECT maps the information stored by JES in the EVENTLOG records that are TYPE=RESTART. This record is written when a job is being re-enqueued for execution and then again when the job re-executes.

## IAZLGRST mapping

Table 199. Structure RSTREC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RSTREC	, EVENTLOG RESTART record
0	(0)	CHARACTER	8	RSTREYEC	RESTART eyecatcher
8	(8)	SIGNED	2	RSTRLEN	Length of RESTART record
10	(A)	BITSTRING	1	RSTRVER	Version of data
10	(A)	X'1'	0	RSTRVER1	"1" Version 1 of IAZLGRST
10	(A)	X'1'	0	RSTRVERC	"RSTRVER1" Current version of data
11	(B)	BITSTRING	1	RSTRFLAG	RESTART Record flags
	1... ....			RSTRETX	"B'10000000" Re-enqueue text inserted
	.1.. ....			RSTRRTX	"B'01000000" Job restarted text inserted
12	(C)	CHARACTER	26	RSTRTEXT	variable txt 'JOB RESTARTED ' variable txt
38	(26)	BITSTRING	1	RSTRSFLG	JCT restart flags (JCTJSFLG)
	1... ....			RSTRSTRS	"X'80" STEP RESTART
	.1.. ....			RSTRCHRS	"X'40" CHECKPOINT RESTART
	..1. ....			RSTRCNRS	"X'20" CONTINUE RESTART
	...1 ....			RSTRHOLD	"X'10" HOLD THE JOB
39	(27)	BITSTRING	1	RSTRBOPT	JCT job option flags (JCTJB0PT) (same as CATJB0PT)
	..1. ....			RSTTHOLD	"B'00100000" TYPRUN=HOLD
	...1 ....			RSTNOLOG	"B'00010000" NO job log option
	.... .1..			RSTINRDR	"B'00000100" Job was entered on INTRDR (not used in CATJB0PT field)
	.... .1.			RSTRERUN	"B'00000010" Job was re-run (not used in CATJB0PT field)
40	(28)	BITSTRING	1	RSTRSJF2	SJB restart flags (SJBFLG2)
	.1... ....			RST2EJST	"X'40" \$EJOB,STEP was processed

Table 199. Structure RSTREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		RST2EOM	"X'20'" END-OF-MEMORY DETECTED
		...1 ....		RST2CNCL	"X'10'" CANCEL AFTER SWA CREATE
		.... .1..		RST2HOLD	"X'04'" HOLD JOB AFTER RE-QUEUE
41	(29)	BITSTRING	1	RSTRSJF4	SJB re-enqueue flgs (SJBFLG4)
		1... ....		RST4MEND	"X'80'" MSG 'ENDED'
		.1.. ....		RST4MTRM	"X'40'" MSG 'TERMINATED'
		..1. ....		RST4MREQ	"X'20'" MSG 'RE-ENQUEUED'
		...1 ....		RST4MREX	"X'10'" MSG 'QUEUED FOR RE-EXECUTION'
		.... .1..		RST4MRQH	"X'04'" MSG 'RE-ENQUEUED AND HELD'
		.... ..1.		RST40CAN	"X'02'" Operator cancelled this SJB
		.... ...1		RST4TERM	"X'01'" BATCH JOB HAS TERMINATED SJB4TERM DIRECTLY INFLUENCES THE CREATION AND DELETION OF THE JSAB
42	(2A)	BITSTRING	6		Reserved
48	(30)	DBL WORD	8	RSTRTIME	Time job re-enqueued/restarted (STCK)
56	(38)	CHARACTER	8	RSTRSYSN	JCT execution MVS system name
64	(40)	CHARACTER	8	RSTRJOBN	Job name
72	(48)	CHARACTER	8	RSTRJBID	Job ID
80	(50)	BITSTRING	2	RSTRSSTP	Job step to restart (JCTJSSTP)
82	(52)	CHARACTER	64	RSTRJCOR	Job correlator
82	(52)	X'92'	0	RSTRSIZ1	"*-RSTREC" Version 1 size of area
82	(52)	X'92'	0	RSTRSIZE	"*-RSTREC" Size of area
82	(52)	X'E2'	0	RSTSSI	"C'S'" RESTART rec subtype of "S"

Table 200. Cross Reference for IAZLGRST

Name	Offset	Hex Tag
RSTINRDR	27	4
RSTNOLOG	27	10
RSTRBOPT	27	
RSTRCHRS	26	40
RSTRCNRS	26	20
RSTREC	0	
RSTRERUN	27	2
RSTRETX	B	80
RSTREYEC	0	
RSTRFLAG	B	
RSTRHOLD	26	10
RSTRJBID	48	
RSTRJCOR	52	
RSTRJOBN	40	
RSTRLEN	8	
RSTRRTXT	B	40
RSTRSFLG	26	

Table 200. Cross Reference for IAZLGRST (continued)

Name	Offset	Hex Tag
RSTRSIZE	52	92
RSTRSIZ1	52	92
RSTRSJF2	28	
RSTRSJF4	29	
RSTRSSTP	50	
RSTRSTRS	26	80
RSTRSYSN	38	
RSTRTEXT	C	
RSTRTIME	30	
RSTRVER	A	
RSTRVERC	A	1
RSTRVER1	A	1
RSTSSI	52	E2
RSTTHOLD	27	20
RST2CNCL	28	10
RST2EJST	28	40
RST2EOM	28	20
RST2HOLD	28	4
RST4MEND	29	80
RST4MREQ	29	20
RST4MREX	29	10
RST4MRQH	29	4
RST4MTRM	29	40
RST40CAN	29	2
RST4TERM	29	1

## IAZLGSTP information

### IAZLGSTP programming interface information

IAZLGSTP is a programming interface.

### IAZLGSTP heading information

<b>Common name:</b>	EVENTLOG STEPDATA record format
<b>Macro ID:</b>	IAZLGSTP
<b>DSECT name:</b>	STEPDATA
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	STEPDATA or ASIN Offset: 0 Length: 8



**Storage attributes:** Subpool: determined by caller of the service  
Key: determined by caller of the service  
Residency: Virtual - anywhere is 31-bit storage  
Real - anywhere in 64 bit storage

**Size:** See STP30LEN equate

**Created by:** EVENTLOG data service IAZLGDT when it detects a SMF type 30 subtype 4 record being written to EVENTLOG.

**Pointed to by:** N/A

**Serialization:** PUT serialization

**Function:** This DSECT maps the information stored by JES in the EVENTLOG records that are TYPE=STEPDATA. This record is written when an SMF type 30 subtype 4 record is presented to the EVENTLOG data service IAZLGDT.

## IAZLGSTP mapping

Table 201. Structure STEPDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	STEPDATA	, EVENTLOG STEPDATA record
0	(0)	CHARACTER	8	STPSEYE	Eyecatcher (set by caller) if an Active Step Information request block. Otherwise it is "STEPDATA"
8	(8)	SIGNED	2	STPSLEN	Length of area filled in
10	(A)	BITSTRING	1	STPSVER	Version of data
10	(A)	X'1'	0	STPSVER1	"1" Version 1 of IAZLGSTP
10	(A)	X'1'	0	STPSVERC	"STPSVER1" Current version of data
11	(B)	BITSTRING	1	STPSFLG1	Flag byte
12	(C)	BITSTRING	4	STP30TME	Header Step end time
16	(10)		4	STP30DTE	Header Step end date
20	(14)	CHARACTER	4	STP30SID	Header System ID
24	(18)	CHARACTER	8	STP30SYN	Subsystem System name where step ran
32	(20)	CHARACTER	8	STP30JBN	Identify Job name
40	(28)	CHARACTER	8	STP30PGM	Identify Program name from EXEC stmt
48	(30)	CHARACTER	8	STP30STM	Identify Step name from EXEC stmt
56	(38)	CHARACTER	8	STP30UIF	Identify User Identification
64	(40)	CHARACTER	8	STP30JNM	Identify JES Job Identifier
72	(48)	BITSTRING	2	STP30STN	Identify Step number
74	(4A)	CHARACTER	1	STP30CLS	Identify Job class (1 char)
DS XL1 Reserved					
76	(4C)	SIGNED	4	STP30SIT	Identify Time fr/midnight job select
80	(50)		4	STP30STD	Identify Date init selected job
84	(54)	CHARACTER	20	STP30USR	Identify Programmer's name
104	(68)	CHARACTER	8	STP30PSN	Identify Name of step invoking proc
112	(70)	CHARACTER	8	STP30CL8	Identify Job class (8 char)
120	(78)	BITSTRING	4	STP30SSN	Identify Substep number for UNIX
124	(7C)	BITSTRING	16	STP30EXN	Identify Program name

Table 201. Structure STEPDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
140	(8C)	CHARACTER	64	STP30COR	Identify Job correlator
204	(CC)	BITSTRING	2	STP30SCC	Completion Step completion code
206	(CE)	BITSTRING	2	STP30STI	Completion Step/Job termination ind
208	(D0)	BITSTRING	4	STP30ARC	Completion Abend reason code
208	(D0)	X'D4'	0	STP30LN1	"*-STEPDATA" Version 1 size of area
208	(D0)	X'D4'	0	STP30LEN	"*-STEPDATA" Length of STEPDATA record
208	(D0)	X'D3'	0	STPSTYPE	"C'L' STEPDATA rec subtype of "L" "

Table 202. Cross Reference for IAZLGSTP

Name	Offset	Hex Tag
STEPDATA	0	
STPSEYE	0	C1E2C9D5
STPSFLG1	B	
STPSLEN	8	
STPSTYPE	D0	D3
STPSVER	A	
STPSVERC	A	1
STPSVER1	A	1
STP30ARC	D0	
STP30CLS	4A	
STP30CL8	70	
STP30COR	8C	
STP30DTE	10	
STP30EXN	7C	
STP30JBN	20	
STP30JNM	40	
STP30LEN	D0	D4
STP30LN1	D0	D4
STP30PGM	28	
STP30PSN	68	
STP30SCC	CC	
STP30SID	14	
STP30SIT	4C	
STP30SSN	78	
STP30STD	50	
STP30STI	CE	
STP30STM	30	
STP30STN	48	
STP30SYN	18	

Table 202. Cross Reference for IAZLGSTP (continued)

Name	Offset	Hex Tag
STP30TME	C	
STP30UIF	38	
STP30USR	54	

## IAZMOND information

### IAZMOND programming interface information

IAZMOND is a programming interface.

### IAZMOND heading information

<b>Common name:</b>	JES Monitor Information Parm List
<b>Macro ID:</b>	IAZMOND
<b>DSECT name:</b>	MOND
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	MOND Offset: MONDSSID Length: L'MONDSSID
<b>Storage attributes:</b>	Subpool: caller Key: Any Residency: Virtual = 31 bit storage real = 31 or 64 bit storage
<b>Size:</b>	See MONDSIZE
<b>Created by:</b>	caller of SSI function 'SSOBSSJI' = 71
<b>Pointed to by:</b>	SSJIUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by authorized programs to request the Monitor Information function.

### IAZMOND mapping

Table 203. Structure MOND

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MOND	
0	(0)	CHARACTER	4	MONDSSID	I.Eyecatcher
4	(4)	ADDRESS	2	MONDLEN	I.Length of MOND area
6	(6)	SIGNED	2	MONDVER(0)	I.MOND caller version
6	(6)	ADDRESS	1	MONDVERL	I.MOND version level
7	(7)	ADDRESS	1	MONDVERM	I.MOND version modifier
7	(7)	BITSTRING	0	MONDV010	"X'0100'" Initial version of macro
7	(7)	BITSTRING	0	MONDV020	"X'0200'" z/OS 1.9 level of macro

Table 203. Structure MOND (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
7	(7)	X'2'	0	MONDCVRL	"2" Current version level
7	(7)	X'0'	0	MONDCVRM	"0" Current version modifier
8	(8)	SIGNED	2	MONDVERO	0.Subsystem version/modifier
10	(A)	BITSTRING	2		Reserved for future use and
12	(C)	SIGNED	4		must be zero
16	(10)	SIGNED	2	MONDUSER(0)	
<p>MONDSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time the MOND is used and from that point on it will be managed by the subsystem. If this field is non-zero, then a return storage request must be made to release data held by this request.</p>					
16	(10)	ADDRESS	8	MONDSTRP	Storage management anchor
24	(18)	SIGNED	4	(2)	Reserved for future use and must be zero
32	(20)	DBL WORD	8	MONDPERF	0.Performance index for last performed request
<p>Monitor Information selection data The following input fields identify what fields you want returned on this request. At least one bit must be set to successfully complete a call.</p>					
40	(28)	BITSTRING	1	MONDSEL1	IS.Info selection flag 1
		1... ....		MONDSRES	"B'10000000" Resource usage stats
		.1.. ....		MONDSMTS	"B'01000000" Main task CPU stats
		..1. ....		MONDSERR	"B'00100000" JES2 ERROR stats
		...1 ....		MONDSWTS	"B'00010000" Main task WAIT stats
		.... 1...		MONDSJSA	"B'00001000" JES2 Alerts
		.... .1..		MONDSJSN	"B'00000100" JES2 Notices
		.... ..1.		MONDSJST	"B'00000010" JES2 Tracks
		.... ...1		MONDSSTO	"B'00000001" JES2 Storage usage
41	(29)	BITSTRING	1	MONDSEL2	IS.Info selection flag 2
		1... ....		MONDSMNS	"B'10000000" Monitor status info
42	(2A)	BITSTRING	1	MONDOPT1	I.Monitor info options
		1... ....		MOND1CRT	"B'10000000" Return only critical notices when MONDSJSN is set
43	(2B)	BITSTRING	1		Reserved for future use and must be zero
<p>History limit The monitor maintains a history for some statistics (resource usage, CPU stats, and error stats). In general, the statistics are reset at the top of each hour and hourly statistics are maintained for as long as the monitor is running. The amount of history returned can be limited by setting MONDHSTC to the number of history elements to return. Setting MONDHSTC to zero or 1 will return only the current data. Setting it to 5 will return the 5 most recent history elements. Setting it to x'FFFF' will return all history elements. For example, if the current time is 11:30, and MONDHSTC is set to 5, then the following 5 history elements will be returned (times are start of intervals). 11:00, 10:00, 9:00, 8:00 and 7:00 MONDHSTC only applies when MONDSRES, MONDSMTS, or MONDSERR is set in MONDSEL1</p>					

Table 203. Structure MOND (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	SIGNED	2	MONDHSTC	IS.History count limit
44	(2C)	BITSTRING	0	MONDHALL	"X'FFFF'" Request all history returned
46	(2E)	BITSTRING	2		Reserved for future use and must be zero
Resource name filter If MONDSEL1 is set to MONDSRES, then MONDRSNM can be set to the resource name for which information is to be returned (left justified, padded with blanks). Generics ( and ?) are allowed. Setting the first byte of MONDRSNM to zero or blanks is the same as setting MONDRSNM to ' '. All resources are returned.					
48	(30)	CHARACTER	8	MONDRSNM	IS*.Resource name filter
56	(38)	SIGNED	4	(16)	Reserved for future use and must be zero
Output areas Output from a Monitor information request is organized by the mapping of the returned data.					
120	(78)	BITSTRING	1	MONDSTAT	0.JES/MONITOR status
		1... ....		MONDJDWN	"B'10000000'" JES is down
		.1.. ....		MONDMDWN	"B'01000000'" Monitor is down
121	(79)	BITSTRING	3		Reserved for future use and must be zero
124	(7C)	ADDRESS	4		Reserved and must be zero
128	(80)	ADDRESS	4	MONDRESQ	0.Resource usage (MDRSDATA)
132	(84)	ADDRESS	4		Reserved and must be zero
136	(88)	ADDRESS	4	MONDCPUS	0.CPU stats (MDCPDATA)
140	(8C)	ADDRESS	4		Reserved and must be zero
144	(90)	ADDRESS	4	MONDERRC	0.Error counts (MDERDATA)
148	(94)	ADDRESS	4		Reserved and must be zero
152	(98)	ADDRESS	4	MONDWAIT	0.MVS WAIT info (MDWTDATA)
156	(9C)	ADDRESS	4		Reserved and must be zero
160	(A0)	ADDRESS	4	MONDMSGS	0.Alert/track/notice msgs (MDMSDATA)
164	(A4)	ADDRESS	4		Reserved and must be zero
168	(A8)	ADDRESS	4	MONDMONI	0.Monitor info (MDMIDATA)
172	(AC)	ADDRESS	4		Reserved and must be zero
176	(B0)	ADDRESS	4	MONDSTRU	0.Storage usage (MDSTDATA)
180	(B4)	SIGNED	4	(15)	Reserved for future use and must be zero
240	(F0)	DBL WORD	8	(0)	Align length
240	(F0)	X'F0'	0	MONDSIZE1	"*-MOND" Parameter end-version 1 size
240	(F0)	X'F0'	0	MONDSIZE2	"*-MOND" Parameter end-version 2 size
240	(F0)	X'F0'	0	MONDSIZE	"*-MOND" Size of MOND
Reason codes					
240	(F0)	X'0'	0	MONDOK	"0" Request worked
Values of SSJIRETN when SSOBRETN is SSJIERVR (4) for function (values of SSJIFREQ) SSJIMNOD and SSJIMNRS.					

Table 203. Structure MOND (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
240	(F0)	X'4'	0	MONDNMON	"4" Monitor address space is down
EQU 20 Used by router Values of SSJIRETN when SSOBRETN is SSJIERRU (8) for function (values of SSJIFREQ) SSJIMNOD and SSJIMNRS. EQU 4 Used by router					
240	(F0)	X'C'	0	MONDIERR	"12" Input error
240	(F0)	X'10'	0	MONDSTRE	"16" MONDSTRP not set correctly

Table 204. Structure MDRSDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDRSDATA	, Resource usage data
0	(0)	CHARACTER	4	MDRSEYE	Area eyecatcher
4	(4)	ADDRESS	4		Reserved
8	(8)	ADDRESS	4	MDRSNEXT	Next MDRS entry
12	(C)	CHARACTER	8	MDRSNAME	Resource name
20	(14)	SIGNED	2	MDRSENT0	Offset to 1st time entry
22	(16)	SIGNED	2	MDRSCNT	Number of time entries
24	(18)	SIGNED	2	MDRSENTL	Length of a time entry
26	(1A)	SIGNED	2		Reserved
28	(1C)	SIGNED	4	(2)	Reserved
36	(24)	BITSTRING	1	MDRSFLG1	General flag byte
		1... ....		MDRS1OVR	"B'10000000" Resource currently over warn
		.1.. ....		MDRS1PLX	"B'01000000" JESplex wide resource
37	(25)	BITSTRING	3		Reserved
40	(28)	CHARACTER	20	MDRSDISC	Descriptive resource name
60	(3C)	CHARACTER	16	MDRSSTMT	Resource limit statement
76	(4C)	CHARACTER	20	MDRSKEYW	and keyword
76	(4C)	X'60'	0	MDRSBASL	"*-MDRSDATA" Length of base section NOT FOR APPLICATION USE

Table 205. Structure MDRSNTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDRSNTRY	, Time entry
0	(0)	BITSTRING	16	MDRSTIME	Time interval started (STCKE)
16	(10)	SIGNED	4	MDRSLIMIT	Current upper limit
20	(14)	SIGNED	4	MDRSINUS	Current number in use
24	(18)	SIGNED	4	MDRSLow	Low usage value
28	(1C)	SIGNED	4	MDRSHIGH	High usage value
32	(20)	SIGNED	4	MDRSAVRG	Average in use value
36	(24)	SIGNED	2	MDRSWARN	Warn level (%)
38	(26)	SIGNED	2	MDRSOVER	Usage over warn level (%*100)
38	(26)	X'28'	0	MDRSENTS	"*-MDRSNTRY" Size of a time entry NOT FOR APPLICATION USE

Table 206. Structure MDCPDATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MDCPDATA	, CPU statistics
0	(0)	CHARACTER	4	MDCPEYE	Area eyecatcher
4	(4)	SIGNED	2	MDCPENTO	Offset to 1st time entry
6	(6)	SIGNED	2	MDCPCNT	Number of time entries
8	(8)	SIGNED	2	MDCPENTL	Length of a time entry
10	(A)	SIGNED	2		Reserved
12	(C)	SIGNED	4	(2)	Reserved
12	(C)	X'14'	0	MDCPBASL	"*-MDCPDATA" Length of base section NOT FOR APPLICATION USE

Table 207. Structure MDCPNTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MDCPNTRY	, Time entry
0	(0)	BITSTRING	16	MDCPTIME	Time interval started (STCKE)
16	(10)	SIGNED	4	MDCPACT	Active sample count
20	(14)	SIGNED	4	MDCPIDLE	Idle sample count
24	(18)	SIGNED	4	MDCPWAIT	Wait sample count
28	(1C)	SIGNED	4	MDCPLLOK	Local lock sample count
32	(20)	SIGNED	4	MDCPNDSP	Non-dispatchable count
36	(24)	SIGNED	4	MDCPPAGE	Page wait sample count
40	(28)	SIGNED	4	MDCPDMVS	Awaiting MVS dispatch
40	(28)	X'2C'	0	MDCPENTS	"*-MDCPNTRY" Size of a time entry NOT FOR APPLICATION USE

Table 208. Structure MDERDATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MDERDATA	, Error counts
0	(0)	CHARACTER	4	MDEREYE	Area eyecatcher
4	(4)	ADDRESS	4		Reserved
8	(8)	ADDRESS	4	MDERNEXT	Next MDRS entry
12	(C)	CHARACTER	8	MDERNAME	Error name
20	(14)	SIGNED	2	MDERENTO	Offset to 1st time entry
22	(16)	SIGNED	2	MDERCNT	Number of time entries
24	(18)	SIGNED	2	MDERENTL	Length of a time entry
26	(1A)	SIGNED	2		Reserved
28	(1C)	SIGNED	4	(2)	Reserved
28	(1C)	X'24'	0	MDERBASL	"*-MDERDATA" Length of base section NOT FOR APPLICATION USE

Table 209. Structure MDERNTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MDERNTRY	, Time entry
0	(0)	BITSTRING	16	MDERTIME	Time interval started (STCKE)
16	(10)	SIGNED	4	MDERCOUN	Error count
20	(14)	BITSTRING	1	MDERTYPE	Error category

Table 209. Structure MDERNTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	X'1'	0	MDERMAIN	"1" Main task
20	(14)	X'2'	0	MDERDIST	"2" DISTERR
20	(14)	X'3'	0	MDERCBIO	"3" CBIO error
20	(14)	X'4'	0	MDEROTHR	"4" Other
20	(14)	X'5'	0	MDERSTSK	"5" JES2 subtask
21	(15)	BITSTRING	3		Reserved
21	(15)	X'18'	0	MDERENTS	"*-MDERNTRY" Size of a time entry NOT FOR APPLICATION USE

Table 210. Structure MDWTDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDWTDATA	, MVS WAIT information
0	(0)	CHARACTER	4	MDWTEYE	Area eyecatcher
4	(4)	SIGNED	2	MDWTENTO	Offset to 1st wait entry
6	(6)	SIGNED	2	MDWTCNT	Number of wait entries
8	(8)	SIGNED	2	MDWTENTL	Length of a wait entry
10	(A)	SIGNED	2		Reserved
12	(C)	SIGNED	4	(2)	Reserved
12	(C)	X'14'	0	MDWTBASL	"*-MDWTDATA" Length of base section NOT FOR APPLICATION USE

Table 211. Structure MDWTNTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDWTNTRY	, Wait entry
0	(0)	BITSTRING	16	MDWTSTCK	Time of most recent wait (STCKE)
16	(10)	ADDRESS	4	MDWTADDR	Address of wait (from RB)
20	(14)	SIGNED	4	MDWTWCNT	Count of waits detected
24	(18)	SIGNED	4	MDWTSCNT	Count of matching samples
28	(1C)	CHARACTER	8	MDWTNAME	Module name from wait
36	(24)	SIGNED	4	MDWTOFFS	Offset of wait in module
40	(28)	CHARACTER	8	MDWTPCE	Name of PCE in control (or MULTIPLE)

MDWTEXTIT is one of the following character values:  
 NONE - wait while JES2 was in control (JC0)  
 exit# - wait while this exit was in control  
 MULTEXIT - multiple exits were in control (MLT)  
 MULTIPLE - JES2 and exit code in control (JNX)

48	(30)	CHARACTER	8	MDWTEXTIT	Exit number in control
56	(38)	BITSTRING	1	MDWTFLAG	Wait flag byte
		1... ....		MDWTFINI	"B'10000000" JES2 was initializing
		.1.. ....		MDWTFTRM	"B'01000000" JES2 was terminating
57	(39)	BITSTRING	3		Reserved
57	(39)	X'3C'	0	MDWTENTS	"*-MDWTNTRY" Size of a wait entry NOT FOR APPLICATION USE



Table 212. Structure MDMSDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDMSDATA	, Alert/track/notice messages
0	(0)	CHARACTER	4	MDMSEYE	Area eyecatcher
4	(4)	ADDRESS	4		Reserved
8	(8)	ADDRESS	4	MDMSNEXT	Next MDRS entry
12	(C)	SIGNED	2	MDMSLEN	Length of area
14	(E)	SIGNED	2		Reserved
16	(10)	SIGNED	4	(3)	Reserved
28	(1C)	BITSTRING	16	MDMSTIME	Time condition started (STCKE) (Alerts and tracks only)
44	(2C)	BITSTRING	1	MDMSTYPE	Message type
44	(2C)	X'1'	0	MDMSTALR	"1" Alert message
44	(2C)	X'2'	0	MDMSTTRK	"2" Track message
44	(2C)	X'3'	0	MDMSTNOT	"3" Notice message
45	(2D)	BITSTRING	1	MDMSFLAG	Flag byte
	1... ....			MDMSFCRT	"B'10000000'" Notice is critical
46	(2E)	ADDRESS	2	MDMDL1LN	1st line of message length
48	(30)	CHARACTER	71	MDMSL1TX	and text
119	(77)	BITSTRING	1		Reserved
120	(78)	ADDRESS	2	MDMDL2LN	2nd line of message length
122	(7A)	CHARACTER	71	MDMSL2TX	and text
193	(C1)	BITSTRING	1		Reserved
194	(C2)	ADDRESS	2	MDMDL3LN	3rd line of message length
196	(C4)	CHARACTER	71	MDMSL3TX	and text
267	(10B)	BITSTRING	1		Reserved
268	(10C)	ADDRESS	2	MDMDL4LN	4rd line of message length
270	(10E)	CHARACTER	71	MDMSL4TX	and text
341	(155)	BITSTRING	1		Reserved
344	(158)	SIGNED	4	(0)	Align
344	(158)	X'158'	0	MDMSENTS	"*-MDMSDATA" Size of message section NOT FOR APPLICATION USE

Table 213. Structure MDMIDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDMIDATA	, Monitor information
0	(0)	CHARACTER	4	MDMIEYE	Area eyecatcher
4	(4)	SIGNED	2	MDMIENTO	Offset to 1st subtask entry
6	(6)	SIGNED	2	MDMICNT	Number of subtask entries
8	(8)	SIGNED	2	MDMIENTL	Length of a subtask entry
10	(A)	SIGNED	2		Reserved
12	(C)	SIGNED	4	(2)	Reserved
12	(C)	X'14'	0	MDMIBASL	"*-MDMIDATA" Length of base section NOT FOR APPLICATION USE

Table 214. Structure MDMINTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDMINTRY	, Monitor subtask entry

Table 214. Structure MDMINTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	8	MDMINAME	Name of monitor task
8	(8)	CHARACTER	12	MDMISTAT	Current task status
20	(14)	CHARACTER	24	MDMIINFO	Status information for subtask
44	(2C)	SIGNED	4		Reserved
48	(30)	DBL WORD	8	(0)	Align
48	(30)	X'30'	0	MDMIENTS	"*-MDMINTRY" Size of a status entry NOT FOR APPLICATION USE

Table 215. Structure MDSTDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDSTDATA	, Storage usage data
0	(0)	CHARACTER	4	MDSTEYE	Area eyecatcher
4	(4)	ADDRESS	4		Reserved
8	(8)	ADDRESS	4	MDSTNEXT	Next MDST entry
12	(C)	CHARACTER	12	MDSTNAME	Storage area description
24	(18)	SIGNED	2	MDSTENTO	Offset to 1st time entry
26	(1A)	SIGNED	2	MDSTCNT	Number of time entries
28	(1C)	SIGNED	2	MDSTENTL	Length of a time entry
30	(1E)	SIGNED	2		Reserved
32	(20)	SIGNED	4	(2)	Reserved
32	(20)	X'28'	0	MDSTBASL	"*-MDSTDATA" Length of base section NOT FOR APPLICATION USE

Table 216. Structure MDSTNTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MDSTNTRY	, Time entry
0	(0)	BITSTRING	16	MDSTTIME	Interval start time (STCKE)
16	(10)	SIGNED	4	MDSTREGN	Current region size (bytes)
20	(14)	SIGNED	4	MDSTUSE	Current bytes in use
24	(18)	SIGNED	4	MDSTLOW	Low usage value (bytes)
28	(1C)	SIGNED	4	MDSTHIGH	High usage value (bytes)
32	(20)	SIGNED	4	MDSTAVRG	Average usage value (bytes)
32	(20)	X'24'	0	MDSTENTS	"*-MDSTNTRY" Size of a time entry NOT FOR APPLICATION USE

Table 217. Cross Reference for IAZMOND

Name	Offset	Hex	Tag
MDCPACT	10		
MDCPBASL	C		14
MDCPCNT	6		
MDCPDATA	0		
MDCPDMVS	28		
MDCPENTL	8		
MDCPENTO	4		

Table 217. Cross Reference for IAZMOND (continued)

Name	Offset	Hex Tag
MDCPENTS	28	2C
MDCPEYE	0	D4C4C3D7
MDCPIDLE	14	
MDCPLLOK	1C	
MDCPNDSP	20	
MDCPNTRY	0	
MDCPPAGE	24	
MDCPTIME	0	
MDCPWAIT	18	
MDERBASL	1C	24
MDERCBIO	14	3
MDERCNT	16	
MDERCOUN	10	
MDERDATA	0	
MDERDIST	14	2
MDERENTL	18	
MDERENTO	14	
MDERENTS	15	18
MDEREYE	0	D4C4C5D9
MDERMAIN	14	1
MDERNAME	C	
MDERNEXT	8	
MDERNTRY	0	
MDEROTHR	14	4
MDERSTSK	14	5
MDERTIME	0	
MDERTYPE	14	
MDMDL1LN	2E	
MDMDL2LN	78	
MDMDL3LN	C2	
MDMDL4LN	10C	
MDMIBASL	C	14
MDMICNT	6	
MDMIDATA	0	
MDMIENTL	8	
MDMIENTO	4	
MDMIENTS	30	30
MDMIEYE	0	D4C4D4C9
MDMIINFO	14	

Table 217. Cross Reference for IAZMOND (continued)

Name	Offset	Hex Tag
MDMINAME	0	
MDMINTRY	0	
MDMISTAT	8	
MDMSDATA	0	
MDMSENTS	158	158
MDMSEYE	0	D4C4D4E2
MDMSFCRT	2D	80
MDMSFLAG	2D	
MDMSLEN	C	
MDMSL1TX	30	
MDMSL2TX	7A	
MDMSL3TX	C4	
MDMSL4TX	10E	
MDMSNEXT	8	
MDMSTALR	2C	1
MDMSTIME	1C	
MDMSTNOT	2C	3
MDMSTTRK	2C	2
MDMSTYPE	2C	
MDRSAVRG	20	
MDRSBASL	4C	60
MDRSCNT	16	
MDRSDATA	0	
MDRSDESC	28	
MDRSENTL	18	
MDRSENTO	14	
MDRSENTS	26	28
MDRSEYE	0	D4C4D9E2
MDRSFLG1	24	
MDRSHIGH	1C	
MDRSINUS	14	
MDRSKEYW	4C	
MDRSLIMT	10	
MDRSLOW	18	
MDRSNAME	C	
MDRSNEXT	8	
MDRSNTRY	0	
MDRSOVER	26	
MDRSSTMT	3C	

Table 217. Cross Reference for IAZMOND (continued)

Name	Offset	Hex Tag
MDRSTIME	0	
MDRSWARN	24	
MDRS10VR	24	80
MDRS1PLX	24	40
MDSTAVRG	20	
MDSTBASL	20	28
MDSTCNT	1A	
MDSTDATA	0	
MDSTENTL	1C	
MDSTENTO	18	
MDSTENTS	20	24
MDSTEYE	0	D4C4E2E3
MDSTHIGH	1C	
MDSTLOW	18	
MDSTNAME	C	
MDSTNEXT	8	
MDSTNTRY	0	
MDSTREGN	10	
MDSTTIME	0	
MDSTUSE	14	
MDWTADDR	10	
MDWTBASL	C	14
MDWTCNT	6	
MDWTDATA	0	
MDWTENTL	8	
MDWTENTO	4	
MDWTENTS	39	3C
MDWTEXIT	30	
MDWTEYE	0	D4C4E6E3
MDWTFINI	38	80
MDWTFLAG	38	
MDWTFTRM	38	40
MDWTNAME	1C	
MDWTNTRY	0	
MDWTOFFS	24	
MDWTPCE	28	
MDWTSCNT	18	
MDWTSTCK	0	
MDWTWCNT	14	

Table 217. Cross Reference for IAZMOND (continued)

Name	Offset	Hex Tag
MOND	0	
MONDCPUS	88	
MONDCVRL	7	2
MONDCVRM	7	0
MONDERRC	90	
MONDHALL	2C	FFFF
MONDHSTC	2C	0
MONDIERR	F0	C
MONDJDWN	78	80
MONDLEN	4	F0
MONDMDWN	78	40
MONDMONI	A8	
MONDMSGGS	A0	
MONDNMON	F0	4
MONDOK	F0	0
MONDOPT1	2A	0
MONDPERF	20	0
MONDRESQ	80	
MONDRSNM	30	40404040
MONDSEL1	28	0
MONDSEL2	29	0
MONDSERR	28	20
MONDSJSA	28	8
MONDSJSN	28	4
MONDSJST	28	2
MONDSMNS	29	80
MONDSMTS	28	40
MONDSRES	28	80
MONDSSID	0	D4D6D5C4
MONDSSTO	28	1
MONDSTAT	78	0
MONDSTRE	F0	10
MONDSTRP	10	
MONDSTRU	B0	
MONDSWTS	28	10
MONDSZE	F0	F0
MONDSZE1	F0	F0
MONDSZE2	F0	F0
MONDUSER	10	

Table 217. Cross Reference for IAZMOND (continued)

Name	Offset	Hex Tag
MONDVER	6	
MONDVERL	6	
MONDVERM	7	
MONDVERO	8	0
MONDV010	7	100
MONDV020	7	200
MONDWAIT	98	
MOND1CRT	2A	80

## IAZSPLIO information

### IAZSPLIO programming interface information

IAZSPLIO is a programming interface.

### IAZSPLIO heading information

<b>Common name:</b>	JES2 Spool Input/Output Parameter List
<b>Macro ID:</b>	IAZSPLIO
<b>DSECT name:</b>	SPLIO
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	SPIO Offset: SPIOSSID Length: L'SPIOSSID
<b>Storage attributes:</b>	Subpool: caller Key: Any Residency: Virtual = any real = any
<b>Size:</b>	See SPIOSE
<b>Created by:</b>	caller of SSI function 'SSOBSSJI' = 71
<b>Pointed to by:</b>	SSJIUSER in the SSOB extension
<b>Serialization:</b>	None
<b>Function:</b>	This macro provides the mapping of the parameter list used by authorized programs to request the Spool Input/Output format.

### IAZSPLIO mapping

Table 218. Structure SPLIO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPLIO	
0	(0)	CHARACTER	4	SPIOSSID	I.Eyecatcher

Table 218. Structure SPLIO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	ADDRESS	2	SPIOLEN	I.Length of SPLIO parameter list
6	(6)	SIGNED	2	SPLIOVRN	I.Parm list version number
6	(6)	X'1'	0	SPLIOVR1	"1" Service version number of IAZSPLIO
6	(6)	X'1'	0	SPLIOVR#	"1" Service version--the latest value
8	(8)	SIGNED	2	SPIOVERO	O.Subsystem version number
10	(A)	SIGNED	2		Reserved
12	(C)	SIGNED	2	SPIOUSER(0)	
<p>SPIOSTRP is an anchor for use by the subsystem that responds to this request. It is expected that the caller will set this to zero the FIRST time an SSOB extension is used and from that point on it will be managed by the subsystem.</p>					
12	(C)	ADDRESS	4	SPIOSTRP	Storage management anchor
16	(10)	SIGNED	4		Reserved
20	(14)	SIGNED	4		Reserved
<p>Spool Input/Output info section Field SPIOSPAD is the only required field. It should have the requested spool control block address. The subsequent input fields are optional and are used for verification purposes. The supported control block types for JES2 are: CHK HDB IOT JCT NHSB OCT SIG SWBI</p>					
24	(18)	BITSTRING	8	SPIOSPAD	I.Spool address to be found This field is required
<p>The following input fields are optional. If they have a null value, they will be considered as not present for verification purposes. Especially, if the control block ID type is null, the other fields are not considered.</p>					
32	(20)	CHARACTER	4	SPIOCTYP	I.Control block ID type
36	(24)	CHARACTER	8	SPIOJNAM	I.Job name
44	(2C)	CHARACTER	8	SPIOJID	I.Job ID (J9999999, etc.)
52	(34)	BITSTRING	4	SPIOJKEY	I.Job key
56	(38)	SIGNED	4	SPIODSKY	I.Dataset key
<p>If instorage buffers are needed, then SPIOJKEY and SPIODSKY must be specified as well as SPIOASID. If instorage buffers are requested, then no SPOOL read is attempted. SPIOSSNM is the MVS system or JES2 member name the job is running on. If SPIOASID is not specified, then SPIOSSNM is not examined. For JES2, instorage buffers are only obtained when SPIOCTYP is set to 'HDB '. Otherwise the data is read from SPOOL. SPIOSSNM must be blank or the name of the system/member where the SPOOL read request originated.</p>					
60	(3C)	CHARACTER	8	SPIOSSNM	I.If instorage data buffers are needed, the system or JES2 member name where the job is running
68	(44)	SIGNED	2	SPIOASID	I.If instorage data buffers are needed, the ASID where the job is running
70	(46)	BITSTRING	1	SPIOOPT	I.Processing options



Table 218. Structure SPLIO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		SPIORACF	"B'10000000'" Perform RACF checks even if caller is authorized
71	(47)	BITSTRING	1		Reserved
72	(48)	SIGNED	4	(5)	Reserved for future use and must be zero
92	(5C)	ADDRESS	4	SPI00UTA	0.Address of control block
96	(60)	SIGNED	4	SPI00LEN	0.Number of bytes in buffer
100	(64)	SIGNED	4		Reserved
104	(68)	SIGNED	4		Reserved
108	(6C)	BITSTRING	1	SPI0IND1	0.Indicator field
		1... ....		SPI0NSTG	"B'10000000'" The control block was retrieved from an instorage buffer
109	(6D)	BITSTRING	3		Reserved
109	(6D)	X'70'	0	SPI0SIZE1	"*-SPLIO" Parameter end-version 1 size
109	(6D)	X'70'	0	SPI0SIZE	"*-SPLIO" Size of SPLIO
Reason codes Values of SSJIRETN when SSOBRETN is zero for function (values of SSJIFREQ) SSJISIOM and SSJISIRS.					
109	(6D)	X'0'	0	SPI0OK	"0" Success
109	(6D)	X'4'	0	SPI0NTVF	"4" The VERIFY was not successful
109	(6D)	X'8'	0	SPI0CBIO	"8" Spool control block I/O error
109	(6D)	X'C'	0	SPI0CBTK	"12" Spool control block invalid track
109	(6D)	X'10'	0	SPI0CBNG	"16" General control block problem
109	(6D)	X'14'	0	SPI0STRG	"20" Error obtaining storage
109	(6D)	X'18'	0	SPI0SJER	"24" Error obtaining below the line storage
109	(6D)	X'1C'	0	SPI0ILOG	"28" A logic error has occurred
109	(6D)	X'20'	0	SPI0NSPL	"32" SPI0STRP not initialized correctly
109	(6D)	X'24'	0	SPI0NBUF	"36" Could not locate instorage buffer
109	(6D)	X'28'	0	SPI0NSAF	"40" RACF failure accessing data

Table 219. Cross Reference for IAZSPLIO

Name	Offset	Hex Tag
SPIOASID	44	
SPIOCBIO	6D	8
SPIOCBNG	6D	10
SPIOCBTK	6D	C
SPIOCTYP	20	
SPIODSKY	38	
SPIOILOG	6D	1C
SPI0IND1	6C	
SPI0JID	2C	

Table 219. Cross Reference for IAZSPLIO (continued)

Name	Offset	Hex Tag
SPIOJKEY	34	
SPIOJNAM	24	
SPIOLEN	4	
SPIONBUF	6D	24
SPIONSAF	6D	28
SPIONSPL	6D	20
SPIONSTG	6C	80
SPIONTVF	6D	4
SPIOOK	6D	0
SPIOOLEN	60	
SPIOOPT	46	
SPIOOUTA	5C	
SPIORACF	46	80
SPIOSJER	6D	18
SPIOSPAD	18	
SPIOSSID	0	
SPIOSSNM	3C	
SPIOSTRG	6D	14
SPIOSTRP	C	
SPIOSZE	6D	70
SPIOSZE1	6D	70
SPIOUSER	C	
SPIOVER0	8	
SPLIO	0	
SPLIOVR#	6	1
SPLIOVRN	6	
SPLIOVR1	6	1

## IAZSSJD information

### IAZSSJD programming interface information

The following fields are **NOT** programming interface information:

- JDAESIZE
- JDAISIZE
- JDALSIZE
- JDAPSIZE
- JDASSIZE
- JDA2SIZE
- JDBCSIZE

- JDBHSIZE
- JDBOSIZE
- JDB2SIZE
- JDCCSIZE
- JDCHSIZE
- JDC2SIZE
- JDC3SIZE
- JDGCSIZE
- JDGHSIZE
- JDG2SIZE
- JDG3SIZE
- JDJBSIZE
- JDJCSIZE
- JDJHSIZE
- JDJSSIZE
- JDK2SIZE
- JDLCSIZE
- JDLHSIZE
- JDL2SIZE
- JDL3SIZE
- JDNCSIZE
- JDNHSIZE
- JDNISIZE
- JDNRSIZE
- JDN2SIZE
- JDN3SIZE
- JDOCSIZE
- JDOHSIZE
- JDO2SIZE
- JDPCSIZE
- JDPFSIZE
- JDPHSIZE
- JDPRSIZE
- JDPWSIZE
- JDP2SIZE
- JDP3SIZE
- JDRCSIZE
- JDRHSIZE
- JDRISIZE
- JDR2SIZE
- JDR3SIZE
- JDSCSIZE
- JDSGAVL

- JDSGDATA
- JDSGEYE
- JDSGNEXT
- JDSGSIZE
- JDSGSTHL
- JDSGSTPL
- JDSGSTRG
- JDSGSTSP
- JDSGSTTL
- JDSHSIZE
- JDSISIZE
- JDSKSIZE
- JDSOSIZE
- JDS2SIZE
- JDUTSIZE
- JDU2SIZE
- JDU3SIZE
- JDWBSIZE
- JDWCSIZE
- JDWHSIZE
- JDWNSIZE
- JDW2SIZE
- JDXCSIZE
- JDXHSIZE
- JDXNSIZE
- JDXOSIZE
- JDX2SIZE
- JDYCSIZE
- JDYHSIZE
- JDYNSIZE
- JDYOSIZE
- JDY2SIZE
- SSJDSTRP
- SSJDTOKN

## IAZSSJD heading information

<b>Common name:</b>	SSOB extension and other data structures used by the device information SSI (SSI 83)
<b>Macro ID:</b>	IAZSSJD
<b>DSECT name:</b>	SSOB extension DSECT is SSJD. See below for DSECT names of data structures returned by the SSI.
<b>Owning component:</b>	JES Common (SC141)

**Eye-catcher ID:** SSOB extension - 'SSJDPL'  
See individual DSECTs for the eye-catchers they use.  
Offset: SSJDEYE  
Length: L'SSJDEYE

**Storage attributes:** Subpool: SSOB extension - determined by caller  
Data structures returned by the SSI - 230  
Key: SSOB extension - determined by caller  
Data structures returned by the SSI - key 1  
Residency: - SSOB extension:  
Virtual - anywhere in 31-bit storage  
Real - anywhere in 64 bit storage  
- Data structures returned by the SSI:  
Virtual - anywhere in 64-bit private storage (see option SSJDPD64)  
Real - anywhere in 64 bit storage

**Size:** See below for sizes of individual DSECTs

**Created by:** SSOB extension - by SSI caller  
Data structures returned by the SSI - by SSI code

**Pointed to by:** SSOBINDV in the IEFSSOBH mapping macro

**Serialization:** None required

**Function:** This macro provides the mapping of the data structures used by the device information SSI (SSI 83):  
- SSOB extension (SSI parameters)  
- data structures returned by the SSI  
- internal storage managed by the SSI  
The SSI returns information about devices managed by the job entry subsystem.  
By default, SSI returns information only from the local system (the one where SSI was called).  
Options are provided to request information from other systems in a JESplex (JES2 - from other members of MAS).  
This SSI is supported by JES2 and JES3.

## IAZSSJD mapping

Table 220. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'53'	0	SSOBSSJD	"83" Device information SSI
Return codes from this SSI (SSOBRETN)					
0	(0)	X'0'	0	SSJDOK	"0" Request successful
0	(0)	X'4'	0	SSJDERRW	"4" Request completed with possible errors, see SSJDRETN for reason code
0	(0)	X'8'	0	SSJDERRU	"8" Request cannot be completed due to user error, see SSJDRETN for reason code
0	(0)	X'C'	0	SSJDERRJ	"12" Request cannot be completed due to an internal (JES) error, SSJDRETN contains internal JES reason code

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'10'	0	SSJDPARM	"16" Parameter list (SSOB extension) has invalid format - it is not an SSJD, the version number is not supported or the SSJD is not large enough
0	(0)	X'14'	0	SSJDESTOR	"20" Request cannot be processed because storage cannot be obtained. No data can be returned to the caller
Reason codes for non-zero return codes (SSJDRETN)					
0	(0)	X'4'	0	SSJDFTRE	"4" Invalid or contradictory filter was requested
0	(0)	X'8'	0	SSJDSPTE	"8" Storage pointer is not valid
0	(0)	X'C'	0	SSJDSTRE	"12" Not enough storage
0	(0)	X'10'	0	SSJDSUBF	"16" Invalid subfunction requested
0	(0)	X'14'	0	SSJDLMT	"20" Specified storage limit reached (see SSJDPLMT)
0	(0)	X'18'	0	SSJDINTE	"24" Internal error building system information data area
0	(0)	X'1C'	0	SSJDEYEE	"28" Incorrect eye catcher for the SSJD user parms area.
0	(0)	X'20'	0	SSJDUNSD	"32" SSJD Control block is wrong version
0	(0)	X'24'	0	SSJDSMLE	"36" SSJD Control block is wrong size
0	(0)	X'80'	0	SSJDSMAP	"128" Error with storage addressed by storage management anchor pointer - e.g. not key 1, fetch protected, incorrect eyecatcher
0	(0)	X'84'	0	SSJDSTGO	"132" STORAGE OBTAIN failed
0	(0)	X'88'	0	SSJDGLBL	"136" Global system is down level. SSI 83 is not supported on the global system (JES3)
0	(0)	X'8C'	0	SSJDPOST	"140" No response data received from the global (JES3)
0	(0)	X'90'	0	SSJDINVL	"144" Invalid response received from the global (JES3)
0	(0)	X'98'	0	SSJDRWIL	"152" SSJD1CHR = SSJDZOMO and not both are zero
The following data structure is an SSOB extension for SSI 83 - the parameter list which is passed on the call to the device information SSI.					
0	(0)	DBL WORD	8	SSJD(0)	SSOB extension - SSI parameter list
0	(0)	CHARACTER	8	SSJDEYE	I.Eye catcher
8	(8)	ADDRESS	2	SSJDLNG	I.Length of parameter list
10	(A)	ADDRESS	2	SSJDVRM	I.Parm list ver/mod
10	(A)	X'A'	0	SSJDVER	"SSJDVRM,1,C'A'" I.Parm list version
10	(A)	X'B'	0	SSJDMOD	"SSJDVRM+1,1,C'A'" I.Parm list modification
10	(A)	X'1'	0	SSJDVER1	"1" - original version
10	(A)	X'0'	0	SSJDMOD0	"0" - original modification
10	(A)	BITSTRING	0	SSJDVRM1	"X'0100'" - original ver/mod
10	(A)	BITSTRING	0	SSJDVRMC	"X'0100'" - latest ver/mod
12	(C)	ADDRESS	2	SSJDSVRM	0.Subsystem ver/mod

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	X'C'	0	SSJDSVER	"SSJDSVRM,1,C'A'" 0.Subsystem version
12	(C)	X'D'	0	SSJDSMOD	"SSJDSVRM+1,1,C'A'" 0.Subsystem modification
12	(C)	X'1'	0	SSJDSVR1	"1" - original version
12	(C)	X'0'	0	SSJDSMD0	"0" - original modification
12	(C)	BITSTRING	0	SSJDSVM1	"X'0100'" - original ver/mod
12	(C)	BITSTRING	0	SSJDSVMC	"X'0100'" - latest ver/mod
<p>Requested function:</p> <ul style="list-style-type: none"> <li>- "obtain data" function returns device data in the storage managed by the SSI for that purpose. This function can be called as many times as needed. Each successive call will add more data to the output (unless SSJDPRLS option is used to release storage).</li> <li>- "release storage" function will release storage used by the data returned by the SSI. Note that "release storage" function ignores all options and filters in the SSI parameter list.</li> </ul>					
14	(E)	ADDRESS	1	SSJDFREQ	I.Requested function:
14	(E)	X'4'	0	SSJDO0TD	"4" obtain data
14	(E)	X'8'	0	SSJDRSTG	"8" release storage
<p>SSI supports several optional types of data. Note: some of this data can be of a very large size or relatively costly to obtain or both. Amount of data returned by the SSI in one call can be controlled using storage limit option. Note: storage limit is not precise - SSI will return control to caller when a logical point in processing is used. Incomplete call could be resumed using a restart option. SSI uses a SSJDTOKN field to resume processing. Processing options and data selection filters should not be changed when a restart call is made.</p>					
15	(F)	BITSTRING	1	SSJDPOPT	I.Processing options:
		1... ....		SSJDPSES	"B'10000000'" return optional SNA session list (list of active LUs) with logon device data
		.1.. ....		SSJDPSCK	"B'01000000'" return optional active socket list with NETSRV device data
		..1. ....		SSJDPRND	"B'00100000'" return optional reachable NJE node list with NJE connection or line device data
		...1 ....		SSJDPLMT	"B'00010000'" stop returning data when the data uses more storage than specified in SSJDLIMIT
		.... 1...		SSJDPRLS	"B'00001000'" release storage used by old data before returning new data
		.... .1..		SSJDPRST	"B'00000100'" restart interrupted processing using token in SSJDTOKN
		.... ..1.		SSJDPD64	"B'00000010'" return data in 64-bit virtual private storage
		.... ...1		SSJDPDMC	"B'00000001'" perform security label dominance check (this check is always performed for non-authorized callers)
16	(10)	BITSTRING	1	SSJDPOP2	I.Processing options (2):
		1... ....		SSJDP2AD	"B'10000000'" return additional data (line, logon or NETSRV device) with remote WS and NJE connection

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1... ....		SSJDP2NF	"B'01000000" apply name filter (see SSJD6NAM) to NJE connections rather than devices of other types
		..1. ....		SSJDP2SD	"B'00100000" return all subdevices for the selected device regardless of filtering (applies to offloads, lines and NJE connections)
17	(11)	BITSTRING	1	SSJDFOPT	I.Output formatting options:
		1... ....		SSJDFLIN	"B'10000000" "line view" - data for remote workstations and NJE connections is arranged according to lines which are used to access them. To access the data use SSJDLIN8/SSJDLINP pointer. Otherwise, this data is arranged according to device type/class. To access the data, use pointers other than SSJDLIN8/SSJDLINP.
		.1... ....		SSJDFDRM	"B'01000000" Destination filter should also be checked vs. remote number for remote print/punch devices and device number for locals (JES2)
<p>Specify SSJD1CHR and SSSJZOMO to tell the SSI service what characters in selection EBCDIC strings are considered wild cards. If SSJD1CHR and SSJDZOMO are not specified, the default wild cards used are "?" for SSJD1CHR and " " for SSJDZOMO. If either value is not X'00', i.e. if either is specified, then both provided values are used even if one value is X'00'. It is an error to specify equal values for SSJD1CHR and SSJDZOMO unless the equal values are X'00'. If both X'00', the default values are used.</p>					
18	(12)	CHARACTER	1	SSJD1CHR	I.Wild card matching exactly one character
19	(13)	CHARACTER	1	SSJDZOMO	I.Wild card matching 0 or more characters
20	(14)	SIGNED	4	SSJDLIMIT	I.Output size limit in KBytes (used with SSJDPLMT) - 0 means "no limit".
<p>The fields that follow specify filters which can be used to limit output to a subset of available data. Implicit OR is performed between filters in the same filter group. E.g. if SSJDFLT1 (device status filter) is set to SSJD1ACT in addition to SSJD1INA, the SSI will return data for all active devices in addition to data for all inactive devices. Implicit AND is performed between filters in the different filter groups. E.g. if SSJDFLT1 (device status filter) is set to SSJD1ACT and SSJDFLT6 is set to SSJD6NAM (device name filter), the SSI will return only those active devices which also have names, matching the name selection filter. If filter is not recognized (e.g. filter added in a future release), or does not apply for a particular device type, it will not have impact on result. For example, JES3-only filters will not have impact on output from JES2. NOTE: All filtering considerations apply to JES2 only.</p>					
24	(18)	BITSTRING	3	(0)	IS.Device status filter group - includes all filters in SSJDFLT1 and SSJDFLT2 (see descriptions of device statuses later in this macro):
24	(18)	BITSTRING	1	SSJDFLT1	IS.Filter by device status (1):
		1... ....		SSJD1ACT	"B'10000000" select active devices



Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		SSJD1INA	"B'01000000" select inactive devices
		..1. ....		SSJD1HOT	"B'00100000" select printers with hot writer (JES3)
		...1 ....		SSJD1DRG	"B'00010000" select draining devices
		.... 1...		SSJD1DRN	"B'00001000" select drained devices (JES2) or offline devices (JES3)
		111. ....		SSJD1NRM	"B'11100000" composite status - select devices in a "normal" state. Devices in this state are available to process work
25	(19)	BITSTRING	1	SSJDFLT2	IS.Filter by device status (2):
		1... ....		SSJD2STE	"B'10000000" select startable devices
		.1.. ....		SSJD2STG	"B'01000000" select starting devices
		..1. ....		SSJD2HTD	"B'00100000" select halted devices
		...1 ....		SSJD2PAU	"B'00010000" select paused devices
		.... 1...		SSJD2HTG	"B'00001000" select halting devices
		.... .1..		SSJD2INT	"B'00000100" select devices requiring intervention/attention
		..11 11..		SSJD2PRB	"B'00111100" composite status - select devices in a "problem" state. Devices in this state may require operator attention
		.... ..1.		SSJD2NRS	"B'00000010" select not responding devices
		.... ...1		SSJD2END	"B'00000001" select devices with processor ended due to error (JES2)
26	(1A)	BITSTRING	1		Reserved
27	(1B)	BITSTRING	3	(0)	IS.Device type filter group - includes all filters in SSJDFLT3 and SSJDFLT4
27	(1B)	BITSTRING	1	SSJDFLT3	IS.Filter by device type (1):
		1... ....		SSJD3PRT	"B'10000000" select printers
		.1.. ....		SSJD3PUN	"B'01000000" select punches
		..1. ....		SSJD3RDR	"B'00100000" select readers
		...1 ....		SSJD3CON	"B'00010000" select consoles
		.... 1...		SSJD3JXM	"B'00001000" select job transmitters
		.... .1..		SSJD3JRC	"B'00000100" select job receivers
		.... ..1.		SSJD3SXM	"B'00000010" select SYSOUT transmitters
		.... ...1		SSJD3SRC	"B'00000001" select SYSOUT receivers
		.... 1.1.		SSJD3XMT	"B'00001010" composite device type filter - select all transmitters
		.... .1.1		SSJD3RCV	"B'00000101" composite device type filter - select all receivers
28	(1C)	BITSTRING	1	SSJDFLT4	IS.Filter by device type (2):
		1... ....		SSJD4LIN	"B'10000000" select line devices
		.1.. ....		SSJD4LGN	"B'01000000" select logon devices
		..1. ....		SSJD4NSV	"B'00100000" select NETSRV devices
		...1 ....		SSJD4OFL	"B'00010000" select OFFLOAD devices
		.... 1...		SSJD4NJE	"B'00001000" select NJE connections
29	(1D)	BITSTRING	1		Reserved

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
30	(1E)	BITSTRING	2	(0)	IS.Device class filter group includes all filters in SSJDFLT5
30	(1E)	BITSTRING	1	SSJDFLT5	IS.Filter by device class:
		1... ....		SSJD5LCL	"B'10000000" select local devices
		.1... ....		SSJD5RMT	"B'01000000" select remote devices
		..1. ....		SSJD50FL	"B'00100000" select OFFLOAD devices (transmitters and receivers)
		...1 ....		SSJD5NJE	"B'00010000" select NJE devices (transmitters and receivers)
		.... 1...		SSJD5IFC	"B'00001000" select interface devices (logon and NETSRV devices)
		.... .1..		SSJD5INT	"B'00000100" select internal devices
31	(1F)	BITSTRING	1		Reserved
Remaining filters are independent and are not combined in filter groups.					
32	(20)	BITSTRING	1	SSJDFLT6	IS.Device attribute filters:
		1... ....		SSJD6NAM	"B'10000000" by device name (see SSJDDVNM)
		.1... ....		SSJD6DGN	"B'01000000" by device group name (JES3) (see SSJDDGNM)
		..1. ....		SSJD6SYS	"B'00100000" by owning system name (see SSJDSYSN)
		...1 ....		SSJD6MBR	"B'00010000" by owning member name (JES2) (see SSJDMBRN)
		.... 1...		SSJD6LIN	"B'00001000" by related line name (see SSJDLNNM) (JES2)
The following filters only apply to devices, which support the relevant attribute. Applying these filters to other devices will not impact the result. E.g. if device type filter was used to select line devices, specifying filters over work selection criteria will not have any effect on the result - because line devices do not have work selection criteria.					
33	(21)	BITSTRING	1	SSJDFLT7	IS.Filters which only apply to specific device types (1):
		1... ....		SSJD7RWN	"B'10000000" select remote devices by remote workstation name (see SSJDRWNM)
		.1... ....		SSJD7NJN	"B'01000000" select NJE devices by adjacent node name (see SSJDADJN) (JES2)
		..1. ....		SSJD7NJA	"B'00100000" select SNA NJE connections by SNA application name (see SSJDAPNM) (JES2)
		...1 ....		SSJD7NJK	"B'00010000" select TCP NJE connections by TCP socket name (see SSJDSKNM) (JES2)
		.... 1...		SSJD7NJB	"B'00001000" select remote and NJE devices connected via BSC
		.... .1..		SSJD7NJS	"B'00000100" select remote and NJE devices connected via SNA
		.... ..1.		SSJD7NJT	"B'00000010" select remote and NJE devices connected via TCP/IP
34	(22)	BITSTRING	1	SSJDFLT8	IS.Filters which only apply to specific device types (2):

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ..		SSJD8JES	"B'10000000'" select JES mode printers
		.1.. ..		SSJD8FSS	"B'01000000'" select FSS mode printers
35	(23)	BITSTRING	1	SSJD9FLT9	IS.Filters which only apply to specific device types (3) - by work selection criteria:
		1... ..		SSJD9CLS	"B'10000000'" select by output class name (see SSJDWSCL)
		.1.. ..		SSJD9FRM	"B'01000000'" select by form name (see SSJDWSFM)
		..1. ....		SSJD9JBN	"B'00100000'" select by job name (see SSJDWSJN)
		...1 ....		SSJD9DST	"B'00010000'" select by destination id (see SSJDWSDS)
		.... 1...		SSJD9WRT	"B'00001000'" select by writer name (see SSJDWSWR)
		.... .1..		SSJD9PRM	"B'00000100'" select by processing mode (see SSJDWSPR)
36	(24)	BITSTRING	1	SSJD9FLTZ	IS.Filters which only apply to specific device types (4) - by attributes of the work unit currently processed by device:
		1... ..		SSJDZJOB	"B'10000000'" select by name of the job currently processed (see SSJDAJOB)
		.1.. ..		SSJDZCRT	"B'01000000'" select by owner of the job currently processed or by creator of the SYSOUT dataset currently processed (see SSJDACRT)
37	(25)	BITSTRING	5		Reserved
<p>Device name filter consists of two parts:</p> <ul style="list-style-type: none"> <li>- wildcard filter (SSJDDVNM)</li> <li>- name list filter (SSJDDVNA and SSJDDVN#)</li> </ul> <p>Device will pass the filter if it matches any of these two parts.</p> <p>Both parts of device name filter are controlled by the same bit (SSJD6NAM).</p> <p>Name list is specified by a pointer to a list (SSJDDVNA) and number of elements in a list (SSJDDVN#). Each element in a list is a pair of 10-character device names, which define a range of device names.</p> <p>To disable the wildcard part of the filter, set it to blanks. To disable the list part of the filter, set pointer or number of elements to zero.</p> <p>For example, one way to select devices with names LINE1 and PRT100-PRT200 is to set wildcard part to 'LINE1' (this will match a single device name), and create a list with one element - a pair of values 'PRT100' and 'PRT200' (this will match a range of device names).</p> <p>The device name filter should return the matching device regardless of what is set for device type and class filters. So, for example, if SSJD5RMT is set to indicate remote subdevices, and a device name of PRT5 is specified, then all remote devices and local device PRT5 will be returned.</p>					
42	(2A)	CHARACTER	10	SSJDDVNM	IS*.Device name for selection (used with SSJD6NAM)
52	(34)	ADDRESS	4	SSJDDVNA	IS. Pointer to device name range list (used with SSJD6NAM)
56	(38)	SIGNED	4	SSJDDVN#	IS. Number of elements in device name range list (used with SSJD6NAM)

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>Device group name filter consists of two parts:</p> <ul style="list-style-type: none"> <li>- wildcard filter (SSJDDGNM)</li> <li>- name list filter (SSJDDGNA and SSJDDGN#)</li> </ul> <p>Device group will pass the filter if it matches any of these two parts.</p> <p>Both parts of device group name filter are controlled by the same bit (SSJD6DGN).</p> <p>Name list is specified by a pointer to a list (SSJDDGNA) and number of elements in a list (SSJDDGN#). Each element in a list is a pair of 8-character device group names, which define a range of device group names.</p> <p>To disable the wildcard part of the filter, set it to blanks. To disable the list part of the filter, set pointer or number of elements to zero.</p> <p>For example, to select device groups with names DGRP1 and DGRP100-DGRP200, set wildcard part to 'DGRP1' (this will match a single device group), and create a list with one element - a pair of values 'DGRP100' and 'DGRP200' (this will match a range of device group names).</p>					
60	(3C)	CHARACTER	8	SSJDDGNM	IS*.Device group name for selection (used with SSJD6DGN)
68	(44)	ADDRESS	4	SSJDDGNA	IS. Pointer to device group name list (used with SSJD6DGN)
72	(48)	SIGNED	4	SSJDDGN#	IS. Number of elements in device group name list (used with SSJD6DGN)
76	(4C)	CHARACTER	8	SSJDSYSN	IS*.System name for selection (used with SSJD6SYS)
84	(54)	CHARACTER	8	SSJDMBRN	IS*.Member name for selection (used with SSJD6MBR)
92	(5C)	CHARACTER	10	SSJDLNNM	IS*.Line name for selection (used with SSJD6LIN)
102	(66)	CHARACTER	10	SSJDRWNM	IS*.Remote workstation name for selection (used with SSJD7RWN)
112	(70)	CHARACTER	8	SSJDADJN	IS*.Adjacent node name for selection (used with SSJD7NJN)
120	(78)	CHARACTER	8	SSJDAPNM	IS*.SNA application name for selection (used with SSJD7NJA)
128	(80)	CHARACTER	8	SSJDSKNM	IS*.TCP socket name for selection (used with SSJD7NJK)
136	(88)	CHARACTER	8	SSJDWSCL	IS*.Output class name for selection (used with SSJD9CLS)
144	(90)	CHARACTER	8	SSJDWSFM	IS*.Form name for selection (used with SSJD9FRM)
152	(98)	CHARACTER	8	SSJDWSJN	IS*.Job name for selection (used with SSJD9JBN)
160	(A0)	CHARACTER	18	SSJDWSDS	IS*.Destination id for selection (used with SSJD9DST)
178	(B2)	CHARACTER	8	SSJDWSWR	IS*.Writer name for selection (used with SSJD9WRT)
186	(BA)	CHARACTER	8	SSJDWSPR	IS*.Processing mode for selection (used with SSJD9PRM)
194	(C2)	CHARACTER	8	SSJDAJOB	IS*.Name of the job currently processed by device (used with SSJDZJOB)
202	(CA)	CHARACTER	8	SSJDACRT	IS*.Owner of the job currently processed or creator of SYSOUT currently processed (used with SSJDZCRM)
210	(D2)	BITSTRING	2		Reserved

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Destination filter consists of two parts: - wildcard filter (SSJDWSDS - see above) - name list filter (SSJDDSTA and SSJDDST#) Destination will pass the filter if it matches any of these two parts. Both parts of destination name filter are controlled by the same bit (SSJD9DST). Name list is specified by a pointer to a list (SSJDDSTA) and number of elements in a list (SSJDDST#). Each element in a list is a 18-character destination name. To disable the wildcard part of the filter, set it to blanks. To disable the list part of the filter, set pointer or number of elements to zero.					
212	(D4)	ADDRESS	4	SSJDDSTA	IS. Pointer to destination name list (used with SSJD6DGN)
216	(D8)	SIGNED	4	SSJDDST#	IS. Number of elements in destination name list (used with SSJD6DGN)
220	(DC)	SIGNED	4	(8)	Reserved
Output fields set by the SSI.					
252	(FC)	SIGNED	4	SSJDRETN	0.Reason code for a return code in SSOBRETN. Provides more details about an error
256	(100)	ADDRESS	8	SSJDLCL8	0.Ptr to chain of local devices
256	(100)	X'104'	0	SSJDLCLP	"SSJDLCL8+4,4,C'A'" 31-bit part of a pointer
264	(108)	ADDRESS	8	SSJDRMT8	0.Ptr to chain of remote (RJE) workstations (see JDWHRMTW)
264	(108)	X'10C'	0	SSJDRMTP	"SSJDRMT8+4,4,C'A'" 31-bit part of a pointer
272	(110)	ADDRESS	8	SSJDNJE8	0.Ptr to chain of NJE connections (see JDJHNJEC)
272	(110)	X'114'	0	SSJDNJEP	"SSJDNJE8+4,4,C'A'" 31-bit part of a pointer
280	(118)	ADDRESS	8	SSJDOFL8	0.Ptr to chain of OFFLOAD devices (see JDOHOFLOD)
280	(118)	X'11C'	0	SSJDOFLP	"SSJDOFL8+4,4,C'A'" 31-bit part of a pointer
288	(120)	ADDRESS	8	SSJDIFC8	0.Ptr to chain of interface devices (see JDGHLOGN and JDNHNSRV)
288	(120)	X'124'	0	SSJDIFCP	"SSJDIFC8+4,4,C'A'" 31-bit part of a pointer
296	(128)	ADDRESS	8	SSJDLIN8	0.Ptr to chain of line devices (see JDLHLINE)
296	(128)	X'12C'	0	SSJDLINP	"SSJDLIN8+4,4,C'A'" 31-bit part of a pointer
304	(130)	ADDRESS	8	SSJDSIN8	0.Ptr to system/member data (see JDSIHDR)
304	(130)	X'134'	0	SSJDSINP	"SSJDSIN8+4,4,C'A'" 31-bit part of a pointer
312	(138)	SIGNED	4	SSJDLCL#	0.Number of local devices returned (in SSJDLCL8/SSJDLCLP chain)
316	(13C)	SIGNED	4	SSJDRMT#	0.Number of remote workstations returned (in SSJDRMT8/SSJDRMTP chain)
320	(140)	SIGNED	4	SSJDRDV#	0.Number of remote subdevices returned (on all JDWHDEV8 chains)
324	(144)	SIGNED	4	SSJDNJE#	0.Number of NJE connections returned (in SSJDNJE8/SSJDNJEP chain)

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
328	(148)	SIGNED	4	SSJJDJV#	0.Number of NJE subdevices returned (on all JDJHDEV8 chains)
332	(14C)	SIGNED	4	SSJDOFL#	0.Number of OFFLOAD devices returned (in SSJDOFL8/SSJDOFLP chain)
336	(150)	SIGNED	4	SSJDODV#	0.Number of offload subdevices returned (on all JDOHDEV8 chains)
340	(154)	SIGNED	4	SSJDSRV#	0.Number of interface devices returned (in SSJDIFC8/SSJDIFCP chain)
344	(158)	SIGNED	4	SSJDLIN#	0.Number of line devices returned (in SSJDLIN8/SSJDLINP chain)
348	(15C)	SIGNED	4	SSJDNV#	0.Number of line subdevices returned (on all JDLHDEV8 chains)
352	(160)	SIGNED	4	SSJDSIN#	0.Number of system/member data areas (in SSJDSIN8/SSJDSINP chain)
356	(164)	BITSTRING	12		Reserved
SSJDSTRP is a storage management anchor for use by the SSI. The caller must set this field to zero on the first call to SSI and after that this field is managed by the subsystem.					
368	(170)	ADDRESS	8	SSJDSTRP	0.Storage management anchor
SSJDTOKN is a token generated by subsystem when SSI call is interrupted according to storage limit option. SSI will resume processing from a place indicated by the token if restart option is selected. The caller must set this field to zero on the first call to SSI and after that this field is managed by the subsystem.					
376	(178)	BITSTRING	32	SSJDTOKN	0.Continuation token (used with SSJDPRT)
408	(198)	SIGNED	4	(10)	Reserved
408	(198)	X'1C0'	0	SSJDSZE1	"*-SSJD" Version 1 length
408	(198)	X'1C0'	0	SSJDSIZE	"*-SSJD" Current version length
408	(198)	X'1E0'	0	SSJDLEN8	"((SSOBHSIZ+7)/8)*8+SSJDSIZE" Total length of SSOB with SSOB extension
Subsequent definitions describe data returned by the device information SSI. Definition of common symbols Supported device groups					
	...1 ....			JDDGCONS	"X'10'" Consoles
	..1. ....			JDDGIFC	"X'20'" Interface devices (logon devices and NETSRV)
	..11 ....			JDDGLINE	"X'30'" Lines
	.1.. ....			JDDGOFLD	"X'40'" OFFLOAD devices
	.1.1 ....			JDDGPRT	"X'50'" Printers
	.11. ....			JDDGPUN	"X'60'" Punches
	.111 ....			JDDGRDR	"X'70'" Readers
	1... ....			JDDGRCV	"X'80'" Receivers
	1..1 ....			JDDGXMT	"X'90'" Transmitters
Supported device types					
408	(198)	X'11'	0	JDDTCONS	"JDDGCONS+1" Console X'11'
408	(198)	X'21'	0	JDDTLOGN	"JDDGIFC+1" Logon device X'21'

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
408	(198)	X'22'	0	JDDTNSRV	"JDDGIFC+2" NETSRV X'22'
408	(198)	X'31'	0	JDDTLINE	"JDDGLINE+1" Line X'31'
408	(198)	X'41'	0	JDDTOFLD	"JDDGOFLD+1" OFFLOAD device X'41'
408	(198)	X'51'	0	JDDTPRT	"JDDGPRT+1" Printer X'51'
408	(198)	X'61'	0	JDDTPUN	"JDDGPUN+1" Punch X'61'
408	(198)	X'71'	0	JDDTRDR	"JDDGRDR+1" Reader X'71'
408	(198)	X'81'	0	JDDTJRCV	"JDDGRCV+1" Job receiver X'81'
408	(198)	X'82'	0	JDDTSRCV	"JDDGRCV+2" SYSOUT receiver X'82'
408	(198)	X'91'	0	JDDTJXMT	"JDDGXMT+1" Job transmitter X'91'
408	(198)	X'92'	0	JDDTSXMT	"JDDGXMT+2" SYSOUT transmitter X'92'
Supported device classes					
	....	...1		JDDCLCL	"X'01'" Local devices
	....	..1.		JDDCIFC	"X'02'" Interface devices (logon and NETSRV devices)
	....	..11		JDDCINT	"X'03'" Internal devices
	....	.1..		JDDCNJE	"X'04'" NJE devices
	....	.1.1		JDDCOFLD	"X'05'" OFFLOAD devices
	....	.11.		JDDCRMt	"X'06'" Remote devices
<p>Matrix of supported device class/device type combinations.</p> <pre> J J J J J J D D D D D D D D D D D D C C C C C C L I I N O R C F N J F M L C T E L T </pre> <p>JDDTCONS X  JDDTLOGN X  JDDTNSRV X  JDDTLINE X  JDDTOFLD X  JDDTPRT X X  JDDTPUN X X  JDDTRDR X X X  JDDTJRCV X X  JDDTSRCV X X  JDDTJXMT X X  JDDTSXMT X X</p> <p>Device status equates.  Status for all devices reported by the SSI is represented as two status bytes.  Full device status may be a combination of more than one basic status (bit).  Bits in the status bytes are defined as follows:  First status byte</p>					
	1...	....		JDST1ACT	"B'10000000'" Active - device is currently busy processing work
	.1..	....		JDST1INA	"B'01000000'" Inactive - device is ready for work but is not processing work now Available (JES3)
	...1	....		JDST1DRG	"B'00010000'" Draining - device is active but will stop after the current unit of work (JES2) Ending (JES3)
	....	1...		JDST1DRN	"B'00001000'" Drained - device is configured but is not available (JES2) Offline (JES3)
	....	.1..		JDST1ACO	"B'00000100'" Device is active but varied offline (JES3)

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Second status byte					
	1... ..			JDST2STE	"B'10000000" Startable - device is not ready for work, but has necessary resources to be started
	.1.. ..			JDST2STG	"B'01000000" Starting - device is in the process of being started
	..1. ..			JDST2HTD	"B'00100000" Halted - device was halted via HALT command
	...1 ..			JDST2PAU	"B'00010000" Paused - device was paused via PAUSE command
	.... 1..			JDST2HTG	"B'00001000" Halting - device is in the process of being halted
	.... .1..			JDST2INT	"B'00000100" Intervention required - device needs operator attention
	.... ..1.			JDST2NRS	"B'00000010" Device not responding
	.... ...1			JDST2END	"B'00000001" Ended - Processor ended due to error (JES2)
Attributes used in work selection criteria					
	.... ...1			JDWSCLAS	"X'01" Class
	.... ..1.			JDWSCRTN	"X'02" Owner/creator of unit of work
	.... ..11			JDWSFCBN	"X'03" FCB name
	.... .1..			JDWSFLID	"X'04" Flash id
	.... .1.1			JDWSFORM	"X'05" Form name
	.... .11.			JDWSJBID	"X'06" Job id/number range
	.... .111			JDWSJBNM	"X'07" Jobname
	.... 1...			JDWSOPTY	"X'08" Output priority
	.... 1..1			JDWSPRMD	"X'09" Processing mode
	.... 1.1.			JDWSUCSN	"X'0A" UCS name
	..1. ...1			JDWSBRST	"X'21" Burst setting (JES2)
	..1. ..1.			JDWSHLDI	"X'22" Hold indicator (JES2)
	..1. ..11			JDWSJBLM	"X'23" Job size limit in records (JES2)
	..1. .1..			JDWSMBAF	"X'24" MAS member affinity (JES2)
	..1. .1.1			JDWSOUTD	"X'25" OUTDISP setting (JES2)
	..1. .11.			JDWSRCJ2	"X'26" Route code/destination (JES2)
	..1. .111			JDWSSCHE	"X'27" Scheduling environment (JES2)
	..1. 1...			JDWSSLSH	"X'28" "Slash" - separates "must have" attributes from preferences (JES2)
	..1. 1..1			JDWSSOSP	"X'29" SYSOUT size limit (pages) (JES2)
	..1. 1.1.			JDWSSOSR	"X'2A" SYSOUT size limit (records) (JES2)
	..1. 1.11			JDWSSRVC	"X'2B" Service class (JES2)
	..1. 11..			JDWSSVAF	"X'2C" Spool volume affinity (JES2)
	..1. 11.1			JDWSUSRD	"X'2D" User-defined criteria (JES2)
	..1. 111.			JDWSWRTN	"X'2E" Writer name (JES2)
	..11 ...1			JDWSCHRS	"X'31" CHARS setting (JES3)
	..11 ..1.			JDWSCPID	"X'32" Copy modification id (JES3)



Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..11 ..11		JDWSDEVT	"X'33'" Device type (JES3)
		..11 .1..		JDWSRCJ3	"X'34'" Route code/destination (JES3)
		..11 .1.1		JDWSSTAK	"X'35'" Stacker setting (JES3)
<p>Data structures returned by the SSI.</p> <p>After successful call to the SSI, data areas with data for specific device types are added to chains pointed to by the following fields in the parameter list:</p> <ul style="list-style-type: none"> <li>- SSJDLCL8/SSJDLCLP - chain of local devices</li> <li>- SSJDRMT8/SSJDRMTP - chain of remote workstations</li> <li>- SSJDNJE8/SSJDNJEP - chain of NJE connections</li> <li>- SSJD0FL8/SSJD0FLP - chain of OFFLOAD devices</li> <li>- SSJDIFC8/SSJDIFCP - chain of interface devices</li> <li>- SSJDLIN8/SSJDLINP - chain of line devices</li> </ul> <p>Data area for each device consists of the following contiguous data structures:</p> <ul style="list-style-type: none"> <li>- header, which has an eye catcher and contains all pointers used for chaining data structures</li> <li>- prefix section, which defines the type of data contained within this header and also accounts for the length of all sections within the header</li> <li>- one or more data sections, which contain data specific for a particular device</li> </ul> <p>Each section has a section type and section type modifier. Modifier 0 is reserved for a prefix section.</p> <p>In addition, field SSJDSIN8/SSJDSINP points to a chain of system information data areas. One such data area is returned for each SSI call, provided that at least one system/member matches system and member selection filters. This data area returns basic data about systems (or members) in a JESplex, which were processed to obtain data for this SSI call.</p> <p>System information data area consists of the following contiguous data structures:</p> <ul style="list-style-type: none"> <li>- Header (JDSIHDR )</li> <li>- Prefix section (JPSYSRPF in macro IAZJPLXI)</li> <li>- System information section (JPSYSINF in macro IAZJPLXI)</li> </ul>					
<p>Note that repeated calls to the "obtain data" subfunction of this SSI (SSJDOBTD) without intervening call to "release storage" subfunction (SSJDRSTG), will cause data from a new SSI call to be prepended to data from an earlier SSI call. Section types and modifiers - these values identify the type of data contained in the data sections returned by the SSI.</p>					
408	(198)	X'1'	0	JDTYCONS	"1" Console data
408	(198)	X'2'	0	JDTYLOGN	"2" Logon device data
408	(198)	X'3'	0	JDTYNSRV	"3" NETSRV data
408	(198)	X'4'	0	JDTYLINE	"4" Line data
408	(198)	X'5'	0	JDTYPRPU	"5" Printer/punch data
408	(198)	X'6'	0	JDTYRDR	"6" Reader device data
408	(198)	X'7'	0	JDTYOFLD	"7" OFFLOAD device data
408	(198)	X'8'	0	JDTYJBRC	"8" Job receiver data
408	(198)	X'9'	0	JDTYSYRC	"9" SYSOUT receiver data
408	(198)	X'A'	0	JDTYJBXM	"10" Job transmitter data
408	(198)	X'B'	0	JDTYSYXM	"11" SYSOUT transmitter data
408	(198)	X'C'	0	JDTYNJEC	"12" NJE Connection data
408	(198)	X'D'	0	JDTYRMTW	"13" Remote workstation data
408	(198)	X'E'	0	JDTYAPPL	"14" SNA application section
408	(198)	X'F'	0	JDTYSOCK	"15" TCP socket section
408	(198)	X'10'	0	JDTYRNOD	"16" Reachable NJE nodes section

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
408	(198)	X'11'	0	JDTYACLU	"17" Active LU list section (SNA session list)
408	(198)	X'12'	0	JDTYACSK	"18" Active TCP socket list section
408	(198)	X'13'	0	JDTYJOBI	"19" Active job information section
408	(198)	X'14'	0	JDTYOUTI	"20" Active output information section
408	(198)	X'FF'	0	JDTYJRSV	"255" Reserved for internal JES use
Modifiers for console data (JDTYCONS)					
	....	....		JDMDCNPX	"X'00'" Prefix section
	....	...1		JDMDCNCM	"X'01'" Console device common section
	..1.	....		JDMDCNJ2	"X'20'" Console device JES2 section
	..11	....		JDMDCNJ3	"X'30'" Console device JES3 section
Modifiers for logon device data (JDTYLOGN)					
	....	....		JMDLGPX	"X'00'" Prefix section
	....	...1		JMDLGCM	"X'01'" Logon device common section
	..1.	....		JMDLGJ2	"X'20'" Logon device JES2 section
	..11	....		JMDLGJ3	"X'30'" Logon device JES3 section
Modifiers for NETSRV data (JDTYNSRV)					
	....	....		JMDNSPX	"X'00'" Prefix section
	....	...1		JMDNSCM	"X'01'" NETSRV device common section
	..1.	....		JMDNSJ2	"X'20'" NETSRV device JES2 section
	..11	....		JMDNSJ3	"X'30'" NETSRV device JES3 section
Modifiers for line data (JDTYLINE)					
	....	....		JMDLNPX	"X'00'" Prefix section
	....	...1		JMDLNCM	"X'01'" Line device common section
	..1.	....		JMDLNJ2	"X'20'" Line device JES2 section
	..11	....		JMDLNJ3	"X'30'" Line device JES3 section
Modifiers for printer/punch data (JDTYPRPU)					
	....	....		JMDPPFX	"X'00'" Prefix section
	....	...1		JMDPPCM	"X'01'" Printer/punch common section
	..1.	....		JMDPPJ2	"X'20'" Printer/punch JES2 section
	..11	....		JMDPPJ3	"X'30'" Printer/punch JES3 section
	....	..1.		JMDPPWS	"X'02'" Prt/punch work selection section
	....	..11		JMDPPFS	"X'03'" N/I printer section
	....	.1..		JMDPPRM	"X'04'" Remote printer section
Modifiers for reader device data (JDTYRDR)					
	....	....		JMDRDPX	"X'00'" Prefix section
	....	...1		JMDRDCM	"X'01'" Reader device common section
	..1.	....		JMDRDJ2	"X'20'" Reader device JES2 section

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..11 ....		JDMDRDJ3	"X'30'" Reader device JES3 section
		.... ..1.		JDMDRDIN	"X'02'" Internal reader section
Modifiers for OFFLOAD device data (JDTYOFLD)					
		.... ....		JDMDOFPX	"X'00'" Prefix section
		.... ...1		JDMDOFCM	"X'01'" OFFLOAD device common section
		..1. ....		JDMDOFJ2	"X'20'" OFFLOAD device JES2 section
Modifiers for job receiver data (JDTYJBRC)					
		.... ....		JDMDJRPX	"X'00'" Prefix section
		.... ...1		JDMDJRCM	"X'01'" Job receiver common section
		..1. ....		JDMDJRJ2	"X'20'" Job receiver JES2 section
		..1. ...1		JDMDJROF	"X'21'" Job receiver OFFLOAD section
Modifiers for SYSOUT receiver data (JDTYSYRC)					
		.... ....		JMDSRPX	"X'00'" Prefix section
		.... ...1		JMDSRCM	"X'01'" SYSOUT receiver common section
		..1. ....		JMDSRJ2	"X'20'" Job transmitter JES2 section
		..1. ...1		JMDSROF	"X'21'" SYSOUT receiver OFFLOAD section
Modifiers for job transmitter data (JDTYJBXM)					
		.... ....		JMDJTPX	"X'00'" Prefix section
		.... ...1		JMDJTTCM	"X'01'" Job transmitter common section
		..1. ....		JMDJTJ2	"X'20'" Job transmitter JES2 section
		..1. ...1		JMDJT2N	"X'21'" Job transmitter NJE section
		..1. ..1.		JMDJT0F	"X'22'" Job transmitter OFFLOAD section
Modifiers for SYSOUT transmitter data (JDTYSYXM)					
		.... ....		JMDSTPX	"X'00'" Prefix section
		.... ...1		JMDSTCM	"X'01'" SYSOUT transmitter common section
		..1. ....		JMDSTJ2	"X'20'" SYSOUT transmitter JES2 section
		..1. ...1		JMDSTJN	"X'21'" SYSOUT transmitter NJE section
		..1. ..1.		JMDST0F	"X'22'" SYSOUT transmitter OFFLOAD section
Modifiers for NJE connection data (JDTYNJEC)					
		.... ....		JMDNJPX	"X'00'" Prefix section
		.... ...1		JMDNJCM	"X'01'" NJE Connection common section
Modifiers for remote workstation data (JDTYRTW)					
		.... ....		JMDRWPX	"X'00'" Prefix section

Table 220. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		JMDRWCM	"X'01'" Remote workstation common section
		..1. ....		JMDRWJ2	"X'20'" Remote workstation JES2 section
		.... ..1.		JMDRWBS	"X'02'" Remote workstation BSC section
		.... ..11		JMDRWSN	"X'03'" Remote workstation SNA section
Modifiers for SNA application data (JDTYAPPL)					
		.... ...1		JMDAPCM	"X'01'" SNA application common section
		..1. ....		JMDAPJ2	"X'20'" SNA application JES2 section
Modifiers for TCP socket data (JDTYSOCK)					
		.... ...1		JMDSKCM	"X'01'" TCP socket common section
		..1. ....		JMDSKJ2	"X'20'" TCP socket JES2 section
Modifiers for active job data (JDTYJOBI)					
		.... ...1		JMDJBCM	"X'01'" Common section
Modifiers for active output data (JDTYOUTI)					
		.... ...1		JMDOTCM	"X'01'" Common section
		..1. ....		JMDOTJ2	"X'20'" JES2 section
		..11 ....		JMDOTJ3	"X'30'" JES3 section

Table 221. Structure JDCXPREF

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDCXPREF	, Prefix section
0	(0)	ADDRESS	4	JDCXLNG	In a prefix section - total length of all sections for this header (not including header itself) In all other sections - length of that section
4	(4)	ADDRESS	1	JDCXTYPE	Section type
5	(5)	ADDRESS	1	JDCXMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDCXDATA(0)	Beginning of section data
8	(8)	X'8'	0	JDCXSIZE	"*-JDCXPREF" Prefix section size

Table 222. Structure JDCHCONS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDCHCONS	, Console device header
0	(0)	CHARACTER	8	JDCHEYE	Eye catcher
8	(8)	ADDRESS	2	JDCHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDCHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDCHJPLX	"JDCHJPL8+4,4,C'A'" 31-bit part of a pointer

Table 222. Structure JDCHCONS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	ADDRESS	8	JDCHNEX8	Address of header of the next device (this remote)
24	(18)	X'1C'	0	JDCHNEXT	"JDCHNEX8+4,4,C'A'" 31-bit part of a pointer
32	(20)	ADDRESS	8	JDCHPAR8	Address of parent device (remote or line)
32	(20)	X'24'	0	JDCHPARN	"JDCHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDCHSIZE	"*-JDCHCONS" Header size (internal use only)

Table 223. Structure JDCCCONS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDCCCONS	, Console device common section
0	(0)	ADDRESS	4	JDCCLNG	Length of this section
4	(4)	ADDRESS	1	JDCCTYPE	Section type
5	(5)	ADDRESS	1	JDCCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDCCDEVT	Device type
9	(9)	ADDRESS	1	JDCCDEVC	Device class
10	(A)	CHARACTER	10	JDCCNAME	Device name
20	(14)	BITSTRING	8		Reserved
28	(1C)	BITSTRING	2	JDCCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDCCSTA1	first status byte
29	(1D)	BITSTRING	1	JDCCSTA2	second status byte
30	(1E)	CHARACTER	8	JDCCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDCCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDCCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	CHARACTER	8	JDCCSTA	Status, character value
56	(38)	X'40'	0	JDCCSIZE	"*-JDCCCONS" Size of console common section (internal use only)

Table 224. Structure JDC2CONS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDC2CONS	, Console device JES2 section
0	(0)	ADDRESS	4	JDC2LNG	Length of this section
4	(4)	ADDRESS	1	JDC2TYPE	Section type
5	(5)	ADDRESS	1	JDC2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDC2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDC2SIZE	"*-JDC2CONS" Size of console JES2 section (internal use only)

Table 225. Structure JDC3CONS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDC3CONS	, Console device JES3 section
0	(0)	ADDRESS	4	JDC3LNG	Length of this section
4	(4)	ADDRESS	1	JDC3TYPE	Section type
5	(5)	ADDRESS	1	JDC3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDC3AUTH	Authority level (0-15)
9	(9)	BITSTRING	3		Reserved
Array of routing codes This is variable size array of fixed-size character strings which represent routing codes.					
12	(C)	ADDRESS	2	JDC3RTC0	Offset from the beginning of DSECT to the first Routing Code
14	(E)	ADDRESS	2	JDC3RTC#	Number of elements in array
16	(10)	ADDRESS	2	JDC3RTCL	Length of each element
Array of destination classes This is variable size array of fixed-size character strings which represent destination classes.					
18	(12)	ADDRESS	2	JDC3DST0	Offset from the beginning of DSECT to the first Destination Class
20	(14)	ADDRESS	2	JDC3DST#	Number of elements in array
22	(16)	ADDRESS	2	JDC3DSTL	Length of each element
22	(16)	X'18'	0	JDC3SIZE	"*-JDC3CONS" Size of console JES3 section (internal use only)

Table 226. Structure JDGHLOGN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDGHLOGN	, Logon device header
0	(0)	CHARACTER	8	JDGHEYE	Eye catcher
8	(8)	ADDRESS	2	JDGHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	1	JDGHFLAG	Header flags
		1... ....		JDGHFHCN	"B'10000000" this header has continuation
		.1.. ....		JDGHFICN	"B'01000000" this header is continuation
11	(B)	BITSTRING	5		Reserved
16	(10)	ADDRESS	8	JDGHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDGHJPLX	"JDGHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDGHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDGHNEXT	"JDGHNEX8+4,4,C'A'" 31-bit part of a pointer
32	(20)	ADDRESS	8	JDGHPAR8	Address of parent device (remote, NJE conn or none)
32	(20)	X'24'	0	JDGHPARN	"JDGHPAR8+4,4,C'A'" 31-bit part of a pointer
40	(28)	ADDRESS	8	JDGHCON8	Address of continuation header
40	(28)	X'2C'	0	JDGHCONT	"JDGHCON8+4,4,C'A'" 31-bit part of a pointer

Table 226. Structure JDGHLOGN (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	X'30'	0	JDGHSIZE	"*-JDGHLOGN" Header size (internal use only)

Table 227. Structure JDGCLOGN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDGCLOGN	, Logon device common section
0	(0)	ADDRESS	4	JDGCLNG	Length of this section
4	(4)	ADDRESS	1	JDGCTYPE	Section type
5	(5)	ADDRESS	1	JDGCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDGCDEVT	Device type
9	(9)	ADDRESS	1	JDGCDEVC	Device class
10	(A)	CHARACTER	10	JDGCNAME	Device name
20	(14)	CHARACTER	8	JDGCAPPL	SNA application name
28	(1C)	BITSTRING	2	JDGCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDGCSTA1	first status byte
29	(1D)	BITSTRING	1	JDGCSTA2	second status byte
30	(1E)	CHARACTER	8	JDGCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDGCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDGCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	BITSTRING	1	JDGCFLAG	Processing flags:
	1... ....			JDGCFERR	"B'10000000" device is in error (not available)
	.1.. ....			JDGCFPWD	"B'01000000" device password set
	..1. ....			JDGCFAUT	"B'00100000" auto restart
	...1 ....			JDGCFTRC	"B'00010000" device trace requested
	.... 1...			JDGCFLOG	"B'00001000" device activity is logged (JES2)
57	(39)	BITSTRING	1		Reserved
58	(3A)	SIGNED	2	JDGCRINT	Auto restart interval (minutes)
60	(3C)	SIGNED	2	JDGCRETR	Max number of restart retries (0 - indefinite retry)
62	(3E)	BITSTRING	2		Reserved
64	(40)	CHARACTER	8	JDGCCSTA	Status, character value
64	(40)	X'48'	0	JDGCSize	"*-JDGCLOGN" Size of logon device common section (internal use only)

Table 228. Structure JDG2LOGN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDG2LOGN	, Logon device JES2 section
0	(0)	ADDRESS	4	JDG2LNG	Length of this section
4	(4)	ADDRESS	1	JDG2TYPE	Section type
5	(5)	ADDRESS	1	JDG2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDG2DVID	Binary device id

Table 228. Structure JDG2LOGN (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDG2SIZE	"*-JDG2LOGN" Size of logon JES2 section (internal use only)

Table 229. Structure JDG3LOGN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDG3LOGN	, Logon device JES3 section
0	(0)	ADDRESS	4	JDG3LNG	Length of this section
4	(4)	ADDRESS	1	JDG3TYPE	Section type
5	(5)	ADDRESS	1	JDG3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDG3DSPJ	JES3 DSP job id
16	(10)	SIGNED	2	JDG3SNLM	Session limit
18	(12)	BITSTRING	2		Reserved
18	(12)	X'14'	0	JDG3SIZE	"*-JDG3LOGN" Size of logon device JES3 section (internal use only)

Table 230. Structure JDNHNSRV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDNHNSRV	, NETSRV device header
0	(0)	CHARACTER	8	JDNHEYE	Eye catcher
8	(8)	ADDRESS	2	JDNHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	1	JDNHFLAG	Header flags
		1... ....		JDNHFHCN	"B'10000000" this header has continuation
		.1.. ....		JDNHFICN	"B'01000000" this header is continuation
11	(B)	BITSTRING	5		Reserved
16	(10)	ADDRESS	8	JDNHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDNHJPLX	"JDNHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDNHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDNHNEXT	"JDHNEX8+4,4,C'A'" 31-bit part of a pointer
32	(20)	ADDRESS	8	JDNHPAR8	Address of parent device (NJE connection or 0)
32	(20)	X'24'	0	JDNHPARN	"JDNHPAR8+4,4,C'A'" 31-bit part of a pointer
40	(28)	ADDRESS	8	JDNHCON8	Address of continuation header
40	(28)	X'2C'	0	JDNHCONT	"JDNHCON8+4,4,C'A'" 31-bit part of a pointer
40	(28)	X'30'	0	JDNHSIZE	"*-JDNHNSRV" Header size (internal use only)

Table 231. Structure JDNCSRVR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDNCSRVR	, NETSRV common section
0	(0)	ADDRESS	4	JDNCLNG	Length of this section



Table 231. Structure JDNCNSRV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	ADDRESS	1	JDNCATYPE	Section type
5	(5)	ADDRESS	1	JDNCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDNCDEVT	Device type
9	(9)	ADDRESS	1	JDNCDEVC	Device class
10	(A)	CHARACTER	10	JDNCNAME	Device name
20	(14)	CHARACTER	8	JDNCCKNM	Local socket name
28	(1C)	BITSTRING	2	JDNCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDNCSTA1	first status byte
29	(1D)	BITSTRING	1	JDNCSTA2	second status byte
30	(1E)	CHARACTER	8	JDNCSSYN	Owning MVS system name
38	(26)	CHARACTER	8	JDNCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDNCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	BITSTRING	1	JDNCFLG1	Processing flags:
	1... ....			JDNC1AUT	"B'10000000" auto restart
	.1.. ....			JDNC1TRB	"B'01000000" basic trace requested
	..1. ....			JDNC1TCM	"B'00100000" common code trace requested
	...1 ....			JDNC1TEX	"B'00010000" extended trace requested
	.... 1...			JDNC1SEC	"B'00001000" SECURE=REQUIRED option set
	.... .1..			JDNC1USC	"B'00000100" SECURE=USE_SOCKET option set (JES2 only)
57	(39)	BITSTRING	1		Reserved
58	(3A)	ADDRESS	2	JDNCASID	NETSRV address space id
60	(3C)	CHARACTER	8	JDNCSTAK	TCP/IP stack name
68	(44)	BITSTRING	4		Reserved
72	(48)	CHARACTER	8	JDNCNSVJ	NETSRV job id
80	(50)	SIGNED	2	JDNCRCINT	Auto restart interval (minutes)
82	(52)	SIGNED	2	JDNCRETR	Max number of restart retries (0 - indefinite retry)
84	(54)	CHARACTER	8	JDNCCTA	Status, character value
84	(54)	X'5C'	0	JDNCSTZE	"*-JDNCNSRV" Size of NETSRV common section (internal use only)

Table 232. Structure JDN2NSRV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDN2NSRV	, NETSRV device JES2 section
0	(0)	ADDRESS	4	JDN2LNG	Length of this section
4	(4)	ADDRESS	1	JDN2TYPE	Section type
5	(5)	ADDRESS	1	JDN2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDN2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved

Table 232. Structure JDN2NSRV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
11	(B)	X'C'	0	JDN2SIZE	"*-JDN2NSRV" Size of NETSRV JES2 section (internal use only)

Table 233. Structure JDN3NSRV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDN3NSRV	, NETSRV JES3 section
0	(0)	ADDRESS	4	JDN3LNG	Length of this section
4	(4)	ADDRESS	1	JDN3TYPE	Section type
5	(5)	ADDRESS	1	JDN3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDN3DSPJ	JES3 DSP job id
8	(8)	X'10'	0	JDN3SIZE	"*-JDN3NSRV" Size of NETSRV JES3 section (internal use only)

Table 234. Structure JDLHLINE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDLHLINE	, Line device header
0	(0)	CHARACTER	8	JDLHEYE	Eye catcher
8	(8)	ADDRESS	2	JDLHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	1	JDLHFLAG	Header flags
		1... ....		JDLHFHCN	"B'10000000" this header has continuation
		.1.. ....		JDLHFICN	"B'01000000" this header is continuation
11	(B)	BITSTRING	1		Reserved
12	(C)	SIGNED	4	JDLHDEV#	Number of related devices in the chain (see JDLHDEV8)
16	(10)	ADDRESS	8	JDLHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDLHJPLX	"JDLHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDLHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDLHNEXT	"JDLHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDLHPAR8	Address of parent device (remote, NJE conn or none)
32	(20)	X'24'	0	JDLHPARN	"JDLHPAR8+4,4,C'A'" 31-bit part of the pointer
40	(28)	ADDRESS	8	JDLHDEV8	Address of header of the first related device
40	(28)	X'2C'	0	JDLHDEVC	"JDLHDEV8+4,4,C'A'" 31-bit part of the pointer
48	(30)	ADDRESS	8	JDLHCON8	Address of continuation
48	(30)	X'34'	0	JDLHCONT	"JDLHCON8+4,4,C'A'" 31-bit part of the pointer
48	(30)	X'38'	0	JDLHSIZE	"*-JDLHLINE" Header size (internal use only)

Table 235. Structure JDLCLINE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDLCLINE	, Line device common section
0	(0)	ADDRESS	4	JDLCLNG	Length of this section
4	(4)	ADDRESS	1	JDLCTYPE	Section type
5	(5)	ADDRESS	1	JDLCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDLCDEVT	Device type
9	(9)	ADDRESS	1	JDLCDEVC	Device class
10	(A)	CHARACTER	10	JDLNAME	Device name
20	(14)	CHARACTER	4	JDLCUNIT	Device unit name/number
24	(18)	BITSTRING	4		Reserved
28	(1C)	BITSTRING	2	JDLCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDLCSTA1	first status byte
29	(1D)	BITSTRING	1	JDLCSTA2	second status byte
30	(1E)	CHARACTER	8	JDLCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDLCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDLCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	BITSTRING	1	JDLCPROT	Line protocol
		.... ..1		JDLCPBSC	"X'01'" BSC
		.... ..1.		JDLCPSNA	"X'02'" SNA
		.... ..11		JDLCPTCP	"X'03'" TCP/IP
57	(39)	BITSTRING	1	JDLFCFLG1	Processing flags (1):
		1... ....		JDLFC1RJA	"B'10000000'" line can be used for RJE
		.1.. ....		JDLFC1NJA	"B'01000000'" line can be used for NJE
		..1. ....		JDLFC1RJE	"B'00100000'" line currently used for RJE
		...1 ....		JDLFC1NJE	"B'00010000'" line currently used for NJE
		.... 1...		JDLFC1CMP	"B'00001000'" line is capable of compression
		.... .1..		JDLFC1DPX	"B'00000100'" full duplex (if not set - half duplex)
		.... ..1.		JDLFC1PWD	"B'00000010'" line password set
		.... ...1		JDLFC1AUT	"B'00000001'" auto restart
58	(3A)	BITSTRING	1	JDLFCFLG2	Processing flags (2):
		1... ....		JDLFC2AB	"B'10000000'" use interface B for this BSC line (if not set - use interface A)
		.1.. ....		JDLFC2TRP	"B'01000000'" transparency indicator
		..1. ....		JDLFC2TRB	"B'00100000'" basic trace requested
		...1 ....		JDLFC2TCM	"B'00010000'" common code trace requested
		.... 1...		JDLFC2TEX	"B'00001000'" extended trace requested
		.... .1..		JDLFC2CNA	"B'00000100'" auto connect required (CONNECT=YES)

Table 235. Structure JDLCLINE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		JDL2CNN	"B'00000010'" auto connect not required (CONNECT=NO) if both JDL2CNA and JDL2CNN are off, CONNECT=DEFAULT
59	(3B)	BITSTRING	1	JDLCDISC	Disconnect behavior:
		.... ....		JDLCDNO	"X'00'" no disconnect
		.... ..1		JDLCDINT	"X'01'" immediate disconnect (interrupt)
		.... ..1.		JDLCDQUI	"X'02'" disconnect after current activity is complete (quiesce)
60	(3C)	SIGNED	2	JDL2CRINT	Auto restart interval (minutes)
62	(3E)	SIGNED	2	JDL2CRETR	Max number of restart retries (0 - indefinite retry)
64	(40)	SIGNED	2	JDL2CCINT	Auto connect interval (minutes)
66	(42)	BITSTRING	2		Reserved
68	(44)	CHARACTER	8	JDL2CCSTA	Status, character value
68	(44)	X'4C'	0	JDL2CSIZE	"*-JDLCLINE" Size of line device common section (internal use only)

Table 236. Structure JDL2LINE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDL2LINE	, Line device JES2 section
0	(0)	ADDRESS	4	JDL2LNG	Length of this section
4	(4)	ADDRESS	1	JDL2TYPE	Section type
5	(5)	ADDRESS	1	JDL2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	10	JDL2CNAM	Connected remote workstation name or NJE node name
18	(12)	CHARACTER	8	JDL2NJEN	Associated NJE node name
26	(1A)	SIGNED	2	JDL2REST	Line resistance
Counts of the number of transmitters/receivers X'FF' indicates a value of DEFAULT					
28	(1C)	BITSTRING	1	JDL2JT#	Number of job transmitters
29	(1D)	BITSTRING	1	JDL2JR#	Number of job receivers
30	(1E)	BITSTRING	1	JDL2ST#	Number of SYSOUT transmitters
31	(1F)	BITSTRING	1	JDL2SR#	Number of SYSOUT receivers
32	(20)	BITSTRING	1	JDL2FLAG	Processing flags:
		1... ....		JDL2FADS	"B'10000000'" auto disconnect indicator
		.1.. ....		JDL2FSHR	"B'01000000'" line is shared
		..1. ....		JDL2FSPH	"B'00100000'" high speed line > 9600 bps (if not set - low speed line)
		...1 ....		JDL2FAB	"B'00010000'" use code B for this dual code BSC line (if not set - use code A)
		.... 1...		JDL2FASC	"B'00001000'" use ASCII control characters (if not set - use EBCDIC)
		.... .1..		JDL2FLOG	"B'00000100'" device activity is logged
		.... ..1.		JDL2FLEA	"B'00000010'" line is leased

Table 236. Structure JDL2LINE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
33	(21)	BITSTRING	3	JDL2DVID	Binary device id
33	(21)	X'24'	0	JDL2SIZE	"*-JDL2LINE" Size of line device JES2 section (internal use only)

Table 237. Structure JDL3LINE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDL3LINE	, Line device JES3 section
0	(0)	ADDRESS	4	JDL3LNG	Length of this section
4	(4)	ADDRESS	1	JDL3TYPE	Section type
5	(5)	ADDRESS	1	JDL3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	SIGNED	4	JDL3BPS	Line speed (bps)
8	(8)	X'C'	0	JDL3SIZE	"*-JDL3LINE" Size of line device JES3 section (internal use only)

Table 238. Structure JDPHPRPU

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDPHPRPU	, Printer/punch device header
0	(0)	CHARACTER	8	JDPHEYE	Eye catcher
8	(8)	ADDRESS	2	JDPHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDPHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDPHJPLX	"JDPHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDPHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDPHNEXT	"JDPHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDPHPAR8	Address of parent device (remote, line or none)
32	(20)	X'24'	0	JDPHPARN	"JDPHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDPHSIZE	"*-JDPHPRPU" Header size (internal use only)

Table 239. Structure JDPCPRPU

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDPCPRPU	, Printer/punch common section
0	(0)	ADDRESS	4	JDPCLNG	Length of this section
4	(4)	ADDRESS	1	JDPCTYPE	Section type
5	(5)	ADDRESS	1	JDPCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDPCDEVT	Device type: JDDTPRT for printer devices JDDTPUN for punch devices
9	(9)	ADDRESS	1	JDPCDEVC	Device class: JDDCLCL for local devices JDDCRMT for remote devices
10	(A)	CHARACTER	10	JDPCNAME	Device name
20	(14)	CHARACTER	4	JDPCUNIT	Device unit name/number
24	(18)	BITSTRING	4		Reserved

Table 239. Structure JDPCPRPU (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	BITSTRING	2	JDPCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDPCSTA1	first status byte
29	(1D)	BITSTRING	1	JDPCSTA2	second status byte
30	(1E)	CHARACTER	8	JDPCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDPCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDPCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	BITSTRING	1	JDPCMOD1	Processing flags (1):
		1... ....		JDPC1FSS	"B'10000000" FSS mode printer (if not set - JES mode printer)
		.1.. ....		JDPC1EDG	"B'01000000" mark edge of separator page (3800 printer)
		..1. ....		JDPC1HTR	"B'00100000" honor TRC parameter on OUTPUT JCL statement (JES mode printer)
		...1 ....		JDPC1PAU	"B'00010000" pause between data sets (JES mode printer)
		.... 1...		JDPC1DSS	"B'00001000" print separator page between data sets
		.... .1..		JDPC1GPS	"B'00000100" print JESNEWS dataset between output groups
		.... ..1.		JDPC1TRC	"B'00000010" trace requested
		.... ...1		JDPC1TRK	"B'00000001" read one track cell at a time from spool (if not set - read one record at a time)
57	(39)	BITSTRING	1	JDPCMOD2	Processing flags (2):
		1... ....		JDPC2VUC	"B'10000000" verify UCS
		.1.. ....		JDPC2SCH	"B'01000000" use current character arrangement table for separator pages (3800) (if not set - use default table)
		..1. ....		JDPC2NIP	"B'00100000" non-impact printer
		...1 ....		JDPC2FLU	"B'00010000" For punches, add a blank card after each data set
		.... ..1.		JDPC2SP2	"B'00000010" SPACE=DOUBLE override for this data set
		.... ...1		JDPC2SP1	"B'00000001" SPACE=SINGLE override for this data set
		.... ..11		JDPC2SP3	"B'00000011" SPACE=TRIPLE override for this data set
58	(3A)	SIGNED	2	JDPCCKML	Max number of lines in a logical page (used for checkpoint)
60	(3C)	SIGNED	2	JDPCCKPG	Number of pages between checkpoints
62	(3E)	CHARACTER	4	JDPCDFCB	Default FCB name
66	(42)	ADDRESS	1	JDPCNEWP	Processing of skip-to-channel commands:
		.... ....		JDPCNPDF	"X'00" use PRINTDEF statement (DEFAULT)
		.... ...1		JDPCNP1	"X'01" skip to channel 1 is treated as new page (ONE)
		.... ..1.		JDPCNPAL	"X'02" skip to any channel is treated as new page (ALL)
67	(43)	ADDRESS	1	JDPCTRNS	TRANS= parameter processing:

Table 239. Structure JDP CPRPU (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		JDPCTYES	"X'01'" always perform translation
		.... ...1.		JDPCTNO	"X'02'" never perform translation
		.... ...11		JDPCTDEF	"X'03'" use TRANS= parameter from PRINTDEF statement
68	(44)	CHARACTER	4	JDPCLID	Default flash id
72	(48)	CHARACTER	4	JDPCMODF	N/I-printer modify identifier
76	(4C)	BITSTRING	1	JDPCMOD3	Processing flags (3)
		1... ....		JDPC3CKP	"B'10000000'" checkpoints are based on page count (see JDPCKPG)
		.1.. ....		JDPC3CKR	"B'01000000'" checkpoints are based on record count (JES3) (see JDP3CKRC)
		..1. ....		JDPC3CKS	"B'00100000'" checkpoints are based on elapsed time (see JDPFCSEC)
		...1 ....		JDPC3SUP	"B'00010000'" Halt with SETUP message between units of work
77	(4D)	BITSTRING	1		Reserved
78	(4E)	CHARACTER	8	JDPCSTA	Status, character value
Array of CHARS settings This is variable size array of fixed-size character strings which represent CHARS settings associated with the printer.					
86	(56)	ADDRESS	2	JDPCCHRO	Offset from the beginning of DSECT to the first CHARS value
88	(58)	ADDRESS	2	JDPCCHR#	Number of elements in array
90	(5A)	ADDRESS	2	JDPCCHRL	Length of each element
90	(5A)	X'5C'	0	JDPCSIZE	"*-JDPCPRPU" Size of prt/punch common section (internal use only)

Table 240. Structure JDPWRKSL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDPWRKSL	, Prt/punch work selection section
0	(0)	ADDRESS	4	JDPWLNG	Length of this section
4	(4)	ADDRESS	1	JDPWTYPE	Section type
5	(5)	ADDRESS	1	JDPWMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
Values for attributes used for work selection					
8	(8)	CHARACTER	8	JDPWOWNN	Name of owner/creator of SYSOUT dataset
16	(10)	CHARACTER	4	JDPWFCBN	FCB name
20	(14)	CHARACTER	4	JDPWFLSH	Flash id
Array of UCS names This is variable size array of fixed-size character strings which represent form names.					
24	(18)	ADDRESS	2	JDPWUCS0	Offset from the beginning of DSECT to the first UCS name
26	(1A)	ADDRESS	2	JDPWUCS#	Number of elements in array
28	(1C)	ADDRESS	2	JDPWUCSL	Length of each element
30	(1E)	BITSTRING	1	JDPWFLG1	Selection flags

Table 240. Structure JDPWRKSL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ..		JDPW1BRS	"B'10000000'" select output with BURST=YES (if not set - select BURST=NO)
31	(1F)	BITSTRING	1		Reserved
Record and page count limits					
32	(20)	SIGNED	4	(0)	Dataset size in records:
32	(20)	SIGNED	4	JDPWRCLL	size in records - low limit
36	(24)	SIGNED	4	JDPWRCLH	size in records - high limit
40	(28)	SIGNED	4	(0)	Dataset size in pages:
40	(28)	SIGNED	4	JDPWPGLL	size in pages - low limit
44	(2C)	SIGNED	4	JDPWPGLH	size in pages - high limit
48	(30)	BITSTRING	2		Reserved
Array of output class names This is a variable size array of fixed-size character strings which represent names of output classes. The class array can also be viewed as a single string, which starts JDPWCLS0 bytes from JDPWRKSL and which length is JDPWCLS# JDPWCLSL.					
50	(32)	ADDRESS	2	JDPWCLS0	Offset from the beginning of DSECT to the first class name
52	(34)	ADDRESS	2	JDPWCLS#	Number of elements in array
54	(36)	ADDRESS	2	JDPWCLSL	Length of each element
Array of form names This is variable size array of fixed-size character strings which represent form names.					
56	(38)	ADDRESS	2	JDPWFRM0	Offset from the beginning of DSECT to the first form name
58	(3A)	ADDRESS	2	JDPWFRM#	Number of elements in array
60	(3C)	ADDRESS	2	JDPWFRML	Length of each element
Array of processing mode names This is variable size array of fixed-size character strings which represent names of processing modes.					
62	(3E)	ADDRESS	2	JDPWPRC0	Offset from the beginning of DSECT to the first processing mode name
64	(40)	ADDRESS	2	JDPWPRC#	Number of elements in array
66	(42)	ADDRESS	2	JDPWPRCL	Length of each element
Array of routing codes/destination ids. This is variable size array of fixed-size character strings which represent routing codes or destination ids.					
68	(44)	ADDRESS	2	JDPWDST0	Offset from the beginning of DSECT to the first route code/dest id
70	(46)	ADDRESS	2	JDPWDST#	Number of elements in array
72	(48)	ADDRESS	2	JDPWDSTL	Length of each element
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					



Table 240. Structure JDPWRKSL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
74	(4A)	ADDRESS	2	JDPWPWSO	Offset from the beginning of DSECT to the work selection string
76	(4C)	ADDRESS	2	JDPWPWSL	Length of the work selection string
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
78	(4E)	ADDRESS	2	JDPWEWSO	Offset from the beginning of DSECT to the work selection array
80	(50)	ADDRESS	2	JDPWEWSL	Length of the work selection array
82	(52)	BITSTRING	2		Reserved
82	(52)	X'54'	0	JDPWSIZE	"*-JDPWRKSL" Size of prt/punch work selection section (internal use only)

Table 241. Structure JDPFPRT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDPFPRT	, N/I printer section
0	(0)	ADDRESS	4	JDPFLNG	Length of this section
4	(4)	ADDRESS	1	JDPFTYPE	Section type
5	(5)	ADDRESS	1	JDPFMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDPFSSNM	Functional subsystem name
16	(10)	CHARACTER	8	JDPFPROC	FSS procedure name
24	(18)	CHARACTER	8	JDPFDEVN	FSS device (FSA) name
32	(20)	SIGNED	2	JDPFNPRO	Non-process runout (NPRO) time in seconds (if 0 - NPRO is not used)
34	(22)	BITSTRING	1	JDPFFLAG	Processing flags:
		1... ....		JDPFFTRC	"B'10000000" rolling trace requested
		.1.. ....		JDPFFPRS	"B'01000000" JES preselects datasets for device
35	(23)	ADDRESS	1	JDPFCPMK	Copy mark increment:
		.... ....		JDPFCDFT	"X'00'" use PRINTDEF settings (DEFAULT)
		.... ...1		JDPFCCON	"X'01'" do not increment (CONSTANT)
		.... ..1.		JDPFCDS	"X'02'" on a dataset level (DATASET)
		.... ...11		JDPFCJOB	"X'03'" on a job level (JOB)
		.... .1..		JDPFCNON	"X'04'" no copy marks to be used (NONE)
36	(24)	SIGNED	2	JDPFCSEC	Checkpoint seconds (when JDPC3CKP flag is not set)
38	(26)	CHARACTER	8	JDPFSSYS	MVS system where FSA is active
46	(2E)	BITSTRING	2		Reserved
46	(2E)	X'30'	0	JDPFSIZE	"*-JDPFPRT" Size of N/I printer section (internal use only)

Table 242. Structure JDP2PRPU

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDP2PRPU	, JES2 printer/punch section
0	(0)	ADDRESS	4	JDP2LNG	Length of this section
4	(4)	ADDRESS	1	JDP2TYPE	Section type
5	(5)	ADDRESS	1	JDP2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDP2FLAG	Processing flags:
		1... ....		JDP2FSEP	"B'10000000" Print separator pages between data set groups
9	(9)	BITSTRING	3	JDP2DVID	Binary device id
Attributes used by JES2 for work selection (additional work selection attributes and work selection criteria used by this printer/punch device see in the printer/punch work selection section).					
12	(C)	BITSTRING	1	JDP2WFLG	Work selection flags:
		.1.. ....		JDP2SFJR	"B'01000000" select within JOB range
		..1. ....		JDP2SFST	"B'00100000" select within STC range
		...1 ....		JDP2SFTS	"B'00010000" select within TSU range
13	(D)	BITSTRING	3		Reserved
16	(10)	CHARACTER	8	JDP2WJBN	Job name for work selection
24	(18)	SIGNED	4	(0)	Job id range for work selection:
24	(18)	SIGNED	4	JDP2WJIL	job id low limit
28	(1C)	SIGNED	4	JDP2WJIH	job id high limit
32	(20)	CHARACTER	8	JDP2WRTN	Writer name for work selection
Array of spool volume names for work selection (spool volume affinity) This is variable size array of fixed-size character strings which represent spool volume names used for work selection.					
40	(28)	ADDRESS	2	JDP2WVLO	Offset from the beginning of DSECT to the first volume name
42	(2A)	ADDRESS	2	JDP2WVL#	Number of elements in array
44	(2C)	ADDRESS	2	JDP2WVLL	Length of each element
Array of binary route codes for work selection This is variable size array of fixed-size structures, mapped by the JDD2DEST structure, of binary route codes used for work selection.					
46	(2E)	ADDRESS	2	JDP2WRCO	Offset from the beginning of DSECT to the first route code
48	(30)	ADDRESS	2	JDP2WRC#	Number of elements in array
50	(32)	ADDRESS	2	JDP2WRCL	Length of each element
50	(32)	X'34'	0	JDP2SIZE	"*-JDP2PRPU" Size of JES2 prt/punch section (internal use only)

Table 243. Structure JDD2DEST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDD2DEST	Binary route code structure
0	(0)	SIGNED	2	JDD2NODE	Nodal part
2	(2)	SIGNED	2	JDD2RTE	Remote part

Table 243. Structure JDD2DEST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	CHARACTER	8	JDD2USER	Userid part
4	(4)	X'C'	0	JDD2DSIZ	"*-JDD2DEST" Length of structure

Table 244. Structure JDP3PRPU

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDP3PRPU	, JES3 printer/punch section
0	(0)	ADDRESS	4	JDP3LNG	Length of this section
4	(4)	ADDRESS	1	JDP3TYPE	Section type
5	(5)	ADDRESS	1	JDP3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDP3GRPN	Device group name
16	(10)	CHARACTER	8	JDP3DEVT	Device type name
24	(18)	CHARACTER	8	JDP3DSPJ	DSP job id
32	(20)	BITSTRING	1	JDP3HFLG	H/R Flags
		1... ..		JDP3HFCB	"B'10000000'" Hold FCB option on device
		.1.. ..		JDP3HCHR	"B'01000000'" Hold CHARS option on device
		..1. ....		JDP3HUCS	"B'00100000'" Hold UCS option on device
		...1 ....		JDP3HMOD	"B'00010000'" Hold CPYMOD option on device
		.... 1...		JDP3HFLS	"B'00001000'" Hold FLASH option on device
		.... .1..		JDP3HFRM	"B'00000100'" Hold FORMS option on device
		.... ..1.		JDP3HBUR	"B'00000010'" Hold STACKER (BURST) option
33	(21)	BITSTRING	1	JDP3FLG1	Flags
		1... ..		JDP31DYN	"B'10000000'" Device can be started dynamically
		.1.. ..		JDP31OLG	"B'01000000'" Log operator commands in output
		..1. ....		JDP31BPG	"B'00100000'" Print burst pages at end of job
		...1 ....		JDP31DGY	"B'00010000'" Device cannot process local datasets
		.... 1...		JDP31PDC	"B'00001000'" PDEFAULT=CHARS
		.... .1..		JDP31PDF	"B'00000100'" PDEFAULT=FCB
34	(22)	SIGNED	2	JDP3CKRC	Number of records between ckpoints
36	(24)	BITSTRING	1	JDP3TRC	TRC
37	(25)	BITSTRING	1	JDP3CGS	Amount of character generation storage in 3800 printer
37	(25)	X'1'	0	JDP3CGS1	"1" 128 characters
37	(25)	X'2'	0	JDP3CGS2	"2" 256 characters
38	(26)	BITSTRING	1	JDP3CB	Clear print indicator
38	(26)	X'1'	0	JDP3CBD	"1" Clear after each data set
38	(26)	X'2'	0	JDP3CBJ	"2" Clear after each Job
38	(26)	X'3'	0	JDP3CBN	"3" Clear as required by printer
39	(27)	BITSTRING	1		Reserved

Table 244. Structure JDP3PRPU (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
39	(27)	X'28'	0	JDP3SIZE	"*-JDP3PRPU" Size of JES3 prt/punch section (internal use only)

Table 245. Structure JDRPRPT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDRPRPT	, Remote printer section
0	(0)	ADDRESS	4	JDPRLNG	Length of this section
4	(4)	ADDRESS	1	JDPRTYPE	Section type
5	(5)	ADDRESS	1	JDPRMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDPRCMT	Compaction table name/number
16	(10)	SIGNED	4	JDPRRECS	Transmission record size
20	(14)	SIGNED	2	JDPRWIDTH	Print width
22	(16)	CHARACTER	8	JDRDEVT	Remote device type and subaddress (PRINTnn, EXCHnn or BASICnn)
30	(1E)	BITSTRING	1	JDRFLAG	Processing flags:
		1... ....		JDRFASI	"B'10000000" send print data ASIS
		.1.. ....		JDRFCMT	"B'01000000" printer has compaction capability
		..1. ....		JDRFCMP	"B'00100000" printer has compression capability
		...1 ....		JDRFFCB	"B'00010000" JES will load FCB on this device
		.... 1...		JDRFSSP	"B'00001000" printer has suspend/interrupt capability
		.... .1..		JDRFCTL	"B'00000100" send carriage control
31	(1F)	BITSTRING	1		Reserved
31	(1F)	X'20'	0	JDRPSIZE	"*-JDRPRPT" Size of remote printer section (internal use only)

Table 246. Structure JDRHRDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDRHRDR	, Reader device header
0	(0)	CHARACTER	8	JDRHEYE	Eye catcher
8	(8)	ADDRESS	2	JDRHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDRHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDRHJPLX	"JDRHJPL8+4,4,C'A" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDRHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDRHNEXT	"JDRHNEX8+4,4,C'A" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDRHPAR8	Address of parent device (remote, line or none)
32	(20)	X'24'	0	JDRHPARN	"JDRHPAR8+4,4,C'A" 31-bit part of the pointer
32	(20)	X'28'	0	JDRHSIZE	"*-JDRHRDR" Header size (internal use only)

Table 247. Structure JDRCRDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDRCRDR	, Reader common section
0	(0)	ADDRESS	4	JDRCLNG	Length of this section
4	(4)	ADDRESS	1	JDRCTYPE	Section type
5	(5)	ADDRESS	1	JDRCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDRCDEVT	Device type
9	(9)	ADDRESS	1	JDRCDEVC	Device class: JDDCLCL for local devices JDDCRMt for remote devices JDDCINT for internal devices
10	(A)	CHARACTER	10	JDRCNAME	Device name
20	(14)	CHARACTER	4	JDRCUNIT	Device unit name/number
24	(18)	BITSTRING	4		Reserved
28	(1C)	BITSTRING	2	JDRCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDRCSTA1	first status byte
29	(1D)	BITSTRING	1	JDRCSTA2	second status byte
30	(1E)	CHARACTER	8	JDRCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDRCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDRCSECL	Security label
54	(36)	BITSTRING	2		Reserved
Progress counters					
56	(38)	SIGNED	4	JDRCTJB#	Total jobs processed by this reader
60	(3C)	SIGNED	4	JDRCTRC#	Total number of records (card images) processed
64	(40)	SIGNED	4	JDRCPRC#	Number of records (card images) processed for the current job
68	(44)	CHARACTER	8	JDRCDFJC	Default job class
76	(4C)	CHARACTER	8	JDRCDFMC	Default message class
84	(54)	CHARACTER	8	JDRCCSTA	Status, character value
84	(54)	X'5C'	0	JDRCSIZE	"*-JDRCRDR" Size of reader common section (internal use only)

Table 248. Structure JDR2RDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDR2RDR	, Reader JES2 section
0	(0)	ADDRESS	4	JDR2LNG	Length of this section
4	(4)	ADDRESS	1	JDR2TYPE	Section type
5	(5)	ADDRESS	1	JDR2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	18	JDR2PRDS	Default print destination
26	(1A)	CHARACTER	18	JDR2PUDS	Default punch destination
44	(2C)	CHARACTER	8	JDR2NODE	Default execution node in NJE network
52	(34)	ADDRESS	1	JDR2PTLM	Priority limit
53	(35)	ADDRESS	1	JDR2PTIN	Priority increment
54	(36)	BITSTRING	1	JDR2FLAG	Processing flags:
	1... ....			JDR2FHLD	"B'10000000" hold jobs when processed

Table 248. Structure JDR2RDR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		JDR2FDVA	"B'01000000'" authorized for device commands
		..1. ....		JDR2FJBA	"B'00100000'" authorized for job commands
		...1 ....		JDR2FSYA	"B'00010000'" authorized for system commands
		.... 1...		JDR2FTRC	"B'00001000'" trace requested
		.... .1..		JDR2FANY	"B'00000100'" default member affinity ANY
		.... ..1.		JDR2FIND	"B'00000010'" default member affinity IND
55	(37)	BITSTRING	3	JDR2DVID	Binary device id
58	(3A)	BITSTRING	2		Reserved
Array of MAS member names (default member affinity) This is variable size array of fixed-size character strings which represent names of MAS members which can be used for job execution.					
60	(3C)	ADDRESS	2	JDR2MBRO	Offset from the beginning of DSECT to the first member name
62	(3E)	ADDRESS	2	JDR2MBR#	Number of elements in array
64	(40)	ADDRESS	2	JDR2MBRL	Length of each element
66	(42)	BITSTRING	2		Reserved
66	(42)	X'44'	0	JDR2SIZE	"*-JDR2RDR" Size of reader JES2 section (internal use only)

Table 249. Structure JDR3RDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDR3RDR	, Reader JES3 section
0	(0)	ADDRESS	4	JDR3LNG	Length of this section
4	(4)	ADDRESS	1	JDR3TYPE	Section type
5	(5)	ADDRESS	1	JDR3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDR3GRPN	Device group name
16	(10)	CHARACTER	8	JDR3DEVT	Device type name
24	(18)	CHARACTER	8	JDR3DSPJ	DSP job id
32	(20)	BITSTRING	1	JDR3FLAG	Processing flags:
		1... ....		JDR3FACT	"B'10000000'" account number required on JOB card
		.1.. ....		JDR3FPGM	"B'01000000'" programmer name required on JOB card
		..1. ....		JDR3FABV	"B'00100000'" SWA should be located above the line
		...1 ....		JDR3FBLP	"B'00010000'" BLP label setting is respected (if not set - BLP setting is ignored)
33	(21)	ADDRESS	1	JDR3DPTY	Default job priority
34	(22)	ADDRESS	1	JDR3JLVL	Default job message level
35	(23)	ADDRESS	1	JDR3ALVL	Default allocation message level
36	(24)	SIGNED	4	JDR3TIML	Default time limit for a job step in seconds (144000 - no limit)

Table 249. Structure JDR3RDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
40	(28)	SIGNED	4	JDR3REGL	Default region size in KBytes
40	(28)	X'2C'	0	JDR3SIZE	"*-JDR3RDR" Size of reader JES3 section (internal use only)

Table 250. Structure JDRIRDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDRIRDR	, Internal reader section
0	(0)	ADDRESS	4	JDRILNG	Length of this section
4	(4)	ADDRESS	1	JDRITYPE	Section type
5	(5)	ADDRESS	1	JDRIMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
Identification of the job which owns internal reader.					
8	(8)	CHARACTER	8	JDRIOBN	Job name
16	(10)	CHARACTER	8	JDRIOBI	Job id
24	(18)	CHARACTER	8	JDRIOWNN	Job owner name
32	(20)	SIGNED	2	JDRIASID	Address space id
34	(22)	BITSTRING	2		Reserved
34	(22)	X'24'	0	JDRISIZE	"*-JDRIRDR" Size of internal reader section (internal use only)

Table 251. Structure JDOHOFD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDOHOFD	, OFFLOAD device header
0	(0)	CHARACTER	8	JDOHEYE	Eye catcher
8	(8)	ADDRESS	2	JDOHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	2		Reserved
12	(C)	SIGNED	4	JDOHDEV#	Number of related devices in the chain (see JDOHDEV8)
16	(10)	ADDRESS	8	JDOHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDOHJPLX	"JDOHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDOHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDOHNEXT	"JDOHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDOHDEV8	Address of header of the first related device
32	(20)	X'24'	0	JDOHDEVC	"JDOHDEV8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDOHSIZE	"*-JDOHOFD" Header size (internal use only)

Table 252. Structure JDOCOFLD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDOCOFLD	, OFFLOAD device common section
0	(0)	ADDRESS	4	JDOCLNG	Length of this section
4	(4)	ADDRESS	1	JDOCTYPE	Section type

Table 252. Structure JDOCOFLD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	ADDRESS	1	JDOCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDOCDEVT	Device type
9	(9)	ADDRESS	1	JDOCDEVC	Device class
10	(A)	CHARACTER	10	JDOCNAME	Device name
20	(14)	CHARACTER	8	JDOCUNIT	Device unit name/number or type
28	(1C)	BITSTRING	2	JDOCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDOCSTA1	first status byte
29	(1D)	BITSTRING	1	JDOCSTA2	second status byte
30	(1E)	CHARACTER	8	JDOCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDOCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDOCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	CHARACTER	8	JDOCCSTA	Status, character value
56	(38)	X'40'	0	JDOCSIZE	"*-JDOCOFLD" Size of OFFLOAD device common section (internal use only)

Table 253. Structure JDO2OFLD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDO2OFLD	, OFFLOAD device JES2 section
0	(0)	ADDRESS	4	JDO2LNG	Length of this section
4	(4)	ADDRESS	1	JDO2TYPE	Section type
5	(5)	ADDRESS	1	JDO2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	SIGNED	2	JDO2NRUN	Number of units to use
10	(A)	SIGNED	2	JDO2NRVL	Number of volumes to use
12	(C)	SIGNED	2	JDO2RETD	Retention period (days)
14	(E)	CHARACTER	44	JDO2DSN	Dataset name
58	(3A)	BITSTRING	1	JDO2FLG1	Processing flags:
		1... ....		JDO21XMT	"B'10000000" started as transmitter
		.1.. ....		JDO21RCV	"B'01000000" started as receiver
59	(3B)	BITSTRING	1	JDO2FLG2	More processing flags:
		1... ....		JDO22ARC	"B'10000000" ARCHIVE=ALL (if not set - ARCHIVE=ONE)
		.1.. ....		JDO22CRT	"B'01000000" preserve creation time (if not set assign new creation time after restore)
		..1. ....		JDO22SAF	"B'00100000" protect via SAF
		...1 ....		JDO22TRC	"B'00010000" trace requested
		.... 1...		JDO22VAL	"B'00001000" validate logical record length
60	(3C)	BITSTRING	1	JDO2TLAB	Tape label processing type:
		.... ...1		JDO2TNL	"X'01" label=NL
		.... ..1.		JDO2TSL	"X'02" label=SL
		.... .1..		JDO2TNSL	"X'04" label=NSL
		.... 1.1.		JDO2TSUL	"X'0A" label=SUL



Table 253. Structure JDO2OFLD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		JDO2TBLP	"X'10'" label=BLP
		.1.. ....		JDO2TAL	"X'40'" label=AL
		.1.. 1...		JDO2TAUL	"X'48'" label=AUL
61	(3D)	BITSTRING	3	JDO2DVID	Binary device id
61	(3D)	X'40'	0	JDO2SIZE	"*-JDO2OFLD" Size of OFFLOAD device JES2 section (internal use only)

Table 254. Structure JDBHJRCV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDBHJRCV	, Job receiver device header
0	(0)	CHARACTER	8	JDBHEYE	Eye catcher
8	(8)	ADDRESS	2	JDBHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDBHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDBHJPLX	"JDBHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDBHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDBHNEXT	"JDBHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDBHPAR8	Address of parent device (offload, line or NJE conn)
32	(20)	X'24'	0	JDBHPARN	"JDBHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDBHSIZE	"*-JDBHJRCV" Header size (internal use only)

Table 255. Structure JDBCJRCV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDBCJRCV	, Job receiver common section
0	(0)	ADDRESS	4	JDBCCLNG	Length of this section
4	(4)	ADDRESS	1	JDBCTYPE	Section type
5	(5)	ADDRESS	1	JDBCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDBCDEVT	Device type
9	(9)	ADDRESS	1	JDBCDEVC	Device class: JDDCNJE for NJE devices JDDCOFLD for OFFLOAD devices
10	(A)	CHARACTER	10	JDBCNAME	Device name
20	(14)	BITSTRING	8		Reserved
28	(1C)	BITSTRING	2	JDBCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDBCSTA1	first status byte
29	(1D)	BITSTRING	1	JDBCSTA2	second status byte
30	(1E)	CHARACTER	8	JDBCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDBCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDBCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	BITSTRING	1	JDBCFLG1	Processing flags:

Table 255. Structure JDB CJRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		JDBC1HLD	"B'10000000" hold received jobs (HOLD=YES)
		.1.. ....		JDBC1RLS	"B'01000000" release received jobs (HOLD=NO) if neither bit set, status is not changed (HOLD=NONE)
57	(39)	BITSTRING	3		Reserved
60	(3C)	CHARACTER	8	JDBCSTA	Status, character value
60	(3C)	X'44'	0	JDBCSIZE	"*-JDB CJRCV" Size of job receiver common section (internal use only)

Table 256. Structure JDB OJRCV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDB OJRCV	, Job receiver OFFLOAD section
0	(0)	ADDRESS	4	JDBOLNG	Length of this section
4	(4)	ADDRESS	1	JDBOTYPE	Section type
5	(5)	ADDRESS	1	JDBOMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDBOFLG1	Processing flags:
		1... ....		JDBO1NFY	"B'10000000" send notification message to TSO userid as requested
		.1.. ....		JDBO1STR	"B'01000000" start this receiver when OFFLOAD device is started
		..1. ....		JDBO EANY	"B'00100000" Job execution member affinity is ANY ( also see section starting with field JDBOMMBO ).
9	(9)	BITSTRING	3		Reserved
Modification settings - job attributes will be changed in a specified way when job is successfully received.					
12	(C)	CHARACTER	8	JDBOMJBC	New job class
20	(14)	CHARACTER	18	JDBOMROU	New route code/destination
Array of member MAS names (new member affinity). This is variable size array of fixed-size character strings which represent names of MAS members which can be used for job execution. NOTE: Check the JDBO EANY bit first before using these fields.					
38	(26)	ADDRESS	2	JDBOMMBO	Offset from the beginning of DSECT to the first member name
40	(28)	ADDRESS	2	JDBOMMB#	Number of elements in array
42	(2A)	ADDRESS	2	JDBOMMBL	Length of each element
Values for attributes used for work selection					
44	(2C)	CHARACTER	8	JDBOWOWN	Name of job owner
52	(34)	CHARACTER	8	JDBOWJBN	Job name
60	(3C)	CHARACTER	8	JDBOWSVN	Service class name
68	(44)	CHARACTER	16	JDBOWSCH	Scheduling environment
84	(54)	BITSTRING	1	JDBOWFLG	Work selection flags:
		1... ....		JDBOWHLD	"B'10000000" Select held (HOLD=YES)

Table 256. Structure JDBOJRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		JDBOWRLS	"B'01000000'" Select non held (HOLD=NO) If neither bit set, select none (HOLD=NONE)
		..1. ....		JDBOWANY	"B'00100000'" Work selection member affinity is ANY ( also see section starting with field JDBOWMBO ).
		...1 ....		JDBOWJOB	"B'00010000'" Job ID range is for JOB
		.... 1..		JDBOWSTC	"B'00001000'" Job ID range is for STC
		.... .1..		JDBOWTSU	"B'00000100'" Job ID range is for TSU
85	(55)	BITSTRING	3		Reserved
88	(58)	SIGNED	4	(0)	Job id range for work selection:
88	(58)	SIGNED	4	JDBOWJIL	job id low limit
92	(5C)	SIGNED	4	JDBOWJIH	job id high limit
Array of job classes This is a variable size array of fixed-size character strings which represent names of job classes or job class groups. The class array can also be viewed as a single string, which starts JDBOWCLO bytes from JDBOJRCV and which length is JDBOWCL# JDBOWCLL.					
96	(60)	ADDRESS	2	JDBOWCLO	Offset from the beginning of DSECT to the first job class
98	(62)	ADDRESS	2	JDBOWCL#	Number of elements in array
100	(64)	ADDRESS	2	JDBOWCLL	Length of each element
Array of routing codes/destination ids. This is variable size array of fixed-size character strings which represent routing codes or destination ids.					
102	(66)	ADDRESS	2	JDBOWDSO	Offset from the beginning of DSECT to the first route code/dest id
104	(68)	ADDRESS	2	JDBOWDS#	Number of elements in array
106	(6A)	ADDRESS	2	JDBOWDSL	Length of each element
Array of binary route codes for work selection This is variable size array of fixed-size structures, mapped by the JDD2DEST structure, of binary route codes used for work selection.					
108	(6C)	ADDRESS	2	JDBOWRCO	Offset from the beginning of DSECT to the first route code
110	(6E)	ADDRESS	2	JDBOWRC#	Number of elements in array
112	(70)	ADDRESS	2	JDBOWRCL	Length of each element
Array of MAS member names for work selection (member affinity) This is variable size array of fixed-size character strings which represent MAS member names used for work selection. NOTE: Check the JDBOWANY bit first before using these fields.					
114	(72)	ADDRESS	2	JDBOWMBO	Offset from the beginning of DSECT to the first member name
116	(74)	ADDRESS	2	JDBOWMB#	Number of elements in array
118	(76)	ADDRESS	2	JDBOWMBL	Length of each element

Table 256. Structure JDBOJRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
120	(78)	ADDRESS	2	JDBOWSCO	Offset from the beginning of DSECT to the work selection string
122	(7A)	ADDRESS	2	JDBOWSCL	Length of the work selection string
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
124	(7C)	ADDRESS	2	JDBOWSEO	Offset from the beginning of DSECT to the work selection array
126	(7E)	ADDRESS	2	JDBOWSEL	Length of the work selection array
126	(7E)	X'80'	0	JDBOSIZE	"*-JDBOJRCV" Size of job receiver OFFLOAD section (internal use only)

Table 257. Structure JDB2JRCV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDB2JRCV	, Job receiver device JES2 section
0	(0)	ADDRESS	4	JDB2LNG	Length of this section
4	(4)	ADDRESS	1	JDB2TYPE	Section type
5	(5)	ADDRESS	1	JDB2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDB2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDB2SIZE	"*-JDB2JRCV" Size of job receiver JES2 section (internal use only)

Table 258. Structure JDSHSRCV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDSHSRCV	, SYSOUT receiver device header
0	(0)	CHARACTER	8	JDSHEYE	Eye catcher
8	(8)	ADDRESS	2	JDSHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDSHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDSHJPLX	"JDSHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDSHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDSHNEXT	"JDSHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDSHPAR8	Address of parent device (offload, line or NJE conn)
32	(20)	X'24'	0	JDSHPARN	"JDSHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDSHSIZE	"*-JDSHSRCV" Header size (internal use only)

Table 259. Structure JDSCSRCV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDSCSRCV	, SYSOUT receiver common section
0	(0)	ADDRESS	4	JDSCCLNG	Length of this section
4	(4)	ADDRESS	1	JDSCCTYPE	Section type
5	(5)	ADDRESS	1	JDSCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDSCDEVT	Device type
9	(9)	ADDRESS	1	JDSCDEVC	Device class: JDDCNJE for NJE devices JDDCOFLD for OFFLOAD devices
10	(A)	CHARACTER	10	JDSCNAME	Device name
20	(14)	BITSTRING	8		Reserved
28	(1C)	BITSTRING	2	JDSCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDSCSTA1	first status byte
29	(1D)	BITSTRING	1	JDSCSTA2	second status byte
30	(1E)	CHARACTER	8	JDSCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDSCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDSCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	CHARACTER	8	JDSCCSTA	Status, character value
56	(38)	X'40'	0	JDSCSIZE	"*-JDSCSRCV" Size of SYSOUT receiver common section (internal use only)

Table 260. Structure JDSOSRCV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDSOSRCV	, SYSOUT receiver OFFLOAD section
0	(0)	ADDRESS	4	JDSOLNG	Length of this section
4	(4)	ADDRESS	1	JDSOCTYPE	Section type
5	(5)	ADDRESS	1	JDSOMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDSOFLG1	Processing flags:
		1... ....		JDSO1NFY	"B'10000000'" send notification message to TSO userid as requested
		.1.. ....		JDSO1STR	"B'01000000'" start this receiver when OFFLOAD device is started
9	(9)	BITSTRING	3		Reserved
Modification settings - SYSOUT dataset attributes will be changed in a specified way when data set is successfully received.					
12	(C)	CHARACTER	4	JDSOMFCB	New FCB name
16	(10)	CHARACTER	4	JDSOMFLH	New flash id
20	(14)	CHARACTER	8	JDSOMFRM	New form name
28	(1C)	CHARACTER	8	JDSOMPRM	New processing mode
36	(24)	CHARACTER	8	JDSOMCLS	New output class/queue
44	(2C)	CHARACTER	18	JDSOMDST	New route code/destination
62	(3E)	CHARACTER	4	JDSOMUCS	New UCS name
66	(42)	CHARACTER	4		Reserved
70	(46)	CHARACTER	8	JDSOMWTR	New writer name

Table 260. Structure JDSOSRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
78	(4E)	BITSTRING	1	JDS0FLG2	Modification settings:
		1... ....		JDS02BRS	"B'10000000" set BURST=YES
		.1.. ....		JDS02BRN	"B'01000000" set BURST=NO if neither bit set, do not change the attribute
		..1. ....		JDS02HLD	"B'00100000" hold output (HOLD=YES)
		...1 ....		JDS02RLS	"B'00010000" release output (HOLD=NO) if neither bit set, status is not changed (HOLD=NONE)
		.... 1...		JDS020DH	"B'00001000" set OUTDISP=HOLD
		.... .1..		JDS020DK	"B'00000100" set OUTDISP=KEEP
		.... ..1.		JDS020DL	"B'00000010" set OUTDISP=LEAVE
		.... ...1		JDS020DW	"B'00000001" set OUTDISP=WRITE
79	(4F)	BITSTRING	1		Reserved
Values for attributes used for work selection					
80	(50)	CHARACTER	4	JDSOWFCB	FCB name
84	(54)	CHARACTER	4	JDSOWFLH	Flash id
88	(58)	CHARACTER	8	JDSOWCRT	SYSOUT creator/owner name
96	(60)	CHARACTER	8	JDSOWJBN	Job name
104	(68)	SIGNED	4	(0)	Job id range for work selection:
104	(68)	SIGNED	4	JDSOWJIL	job id low limit
108	(6C)	SIGNED	4	JDSOWJIH	job id high limit
112	(70)	CHARACTER	4	JDSOWUCS	UCS name
116	(74)	CHARACTER	4		Reserved
120	(78)	CHARACTER	8	JDSOWWTR	Writer name
128	(80)	BITSTRING	1	JDS0FLG3	Work selection flags:
		1... ....		JDS03BRS	"B'10000000" select jobs with BURST=YES (if not set - select BURST=NO)
		.1.. ....		JDS03HLD	"B'01000000" select jobs which are held (if not set - select jobs which are not held)
		..1. ....		JDS030DH	"B'00100000" select output with OUTDISP=HOLD
		...1 ....		JDS030DK	"B'00010000" select output with OUTDISP=KEEP
		.... 1...		JDS030DL	"B'00001000" select output with OUTDISP=LEAVE
		.... .1..		JDS030DW	"B'00000100" select output with OUTDISP=WRITE
		.... ..1.		JDS03BNS	"B'00000010" BURST value was not set (ignore JDS03BRS)
		.... ...1		JDS03HNS	"B'00000001" HOLD value was not set (ignore JDS03HLD)
129	(81)	BITSTRING	1	JDS0FLG4	More work Selection flags:
		1... ....		JDS04JOB	"B'10000000" Job ID range is for JOB
		.1.. ....		JDS04STC	"B'01000000" Job ID range is for STC
		..1. ....		JDS04TSU	"B'00100000" Job ID range is for TSU
130	(82)	BITSTRING	2		Reserved

Table 260. Structure JDSOSRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Array of output classes This is a variable size array of fixed-size character strings which represent names of output classes.					
132	(84)	ADDRESS	2	JDSOWCLO	Offset from the beginning of DSECT to the first class
134	(86)	ADDRESS	2	JDSOWCL#	Number of elements in array
136	(88)	ADDRESS	2	JDSOWCLL	Length of each element
Array of form names This is a variable size array of fixed-size character strings which represent names of output forms.					
138	(8A)	ADDRESS	2	JDSOWFMO	Offset from the beginning of DSECT to the first form name
140	(8C)	ADDRESS	2	JDSOWFM#	Number of elements in array
142	(8E)	ADDRESS	2	JDSOWFML	Length of each element
Array of processing mode names This is a variable size array of fixed-size character strings which represent names of processing modes.					
144	(90)	ADDRESS	2	JDSOWPMO	Offset from the beginning of DSECT to the first processing mode name
146	(92)	ADDRESS	2	JDSOWPM#	Number of elements in array
148	(94)	ADDRESS	2	JDSOWPML	Length of each element
Array of routing codes/destination ids This is variable size array of fixed-size character strings which represent routing codes or destination ids.					
150	(96)	ADDRESS	2	JDSOWDSO	Offset from the beginning of DSECT to the first route code/dest id
152	(98)	ADDRESS	2	JDSOWDS#	Number of elements in array
154	(9A)	ADDRESS	2	JDSOWDSL	Length of each element
Array of binary route codes for work selection This is variable size array of fixed-size structures, mapped by the JDD2DEST structure, of binary route codes used for work selection.					
156	(9C)	ADDRESS	2	JDSOWRCO	Offset from the beginning of DSECT to the first route code
158	(9E)	ADDRESS	2	JDSOWRC#	Number of elements in array
160	(A0)	ADDRESS	2	JDSOWRCL	Length of each element
162	(A2)	BITSTRING	2		Reserved
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
164	(A4)	ADDRESS	2	JDSOWSCO	Offset from the beginning of DSECT to the work selection string
166	(A6)	ADDRESS	2	JDSOWSCL	Length of the work selection string

Table 260. Structure JDSOSRCV (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
168	(A8)	ADDRESS	2	JDSOWSEO	Offset from the beginning of DSECT to the work selection array
170	(AA)	ADDRESS	2	JDSOWSEL	Length of the work selection array
170	(AA)	X'AC'	0	JDSOSIZE	"*-JDSOSRCV" Size of OFFLOAD SYSOUT receiver section (internal use only)

Table 261. Structure JDS2SRCV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDS2SRCV	, SYSOUT receiver JES2 section
0	(0)	ADDRESS	4	JDS2LNG	Length of this section
4	(4)	ADDRESS	1	JDS2TYPE	Section type
5	(5)	ADDRESS	1	JDS2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDS2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDS2SIZE	"*-JDS2SRCV" Size of SYSOUT receiver JES2 section (internal use only)

Table 262. Structure JDXHJXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDXHJXMT	, Job transmitter header
0	(0)	CHARACTER	8	JDXHEYE	Eye catcher
8	(8)	ADDRESS	2	JDXHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDXHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDXHJPLX	"JDXHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDXHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDXHNEXT	"JDXHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDXHPAR8	Address of parent device (offload, line or NJE conn)
32	(20)	X'24'	0	JDXHPARN	"JDXHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDXHSIZE	"*-JDXHJXMT" Header size (internal use only)

Table 263. Structure JDXCJXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDXCJXMT	, Job transmitter common data
0	(0)	ADDRESS	4	JDXCLNG	Length of this section
4	(4)	ADDRESS	1	JDXCTYPE	Section type
5	(5)	ADDRESS	1	JDXCMOD	Section type modifier



Table 263. Structure JDXCJXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDXCDEVT	Device type
9	(9)	ADDRESS	1	JDXCDEVC	Device class: JDDCNJE for NJE devices JDDCOFLD for OFFLOAD devices
10	(A)	CHARACTER	10	JDXCNAME	Device name
20	(14)	BITSTRING	8		Reserved
28	(1C)	BITSTRING	2	JDXCSTAT(0)	Device status: (see common device status flags)
28	(1C)	BITSTRING	1	JDXCSTA1	first status byte
29	(1D)	BITSTRING	1	JDXCSTA2	second status byte
30	(1E)	CHARACTER	8	JDXCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDXCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDXCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	CHARACTER	8	JDXCCSTA	Status, character value
56	(38)	X'40'	0	JDXCSIZE	"*-JDXCJXMT" Size of job transmitter common section (internal use only)

Table 264. Structure JDXNJXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDXNJXMT	, Job transmitter NJE section
0	(0)	ADDRESS	4	JDXNLNG	Length of this section
4	(4)	ADDRESS	1	JDXNTYPE	Section type
5	(5)	ADDRESS	1	JDXNMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
Values for attributes used for work selection					
8	(8)	SIGNED	4	(0)	Job size range for work selection (records):
8	(8)	SIGNED	4	JDXNWJSL	job size low limit
12	(C)	SIGNED	4	JDXNWJSH	job size high limit
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
16	(10)	ADDRESS	2	JDXNWSCO	Offset from the beginning of DSECT to the work selection string
18	(12)	ADDRESS	2	JDXNWSCL	Length of the work selection string
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
20	(14)	ADDRESS	2	JDXNWSEO	Offset from the beginning of DSECT to the work selection array
22	(16)	ADDRESS	2	JDXNWSEL	Length of the work selection array
22	(16)	X'18'	0	JDXNSIZE	"*-JDXNJXMT" Size of job transmitter NJE section (internal use only)

Table 265. Structure JDXOJXMT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDXOJXMT	, Job transmitter OFFLOAD section
0	(0)	ADDRESS	4	JDXOLNG	Length of this section
4	(4)	ADDRESS	1	JDXOTYPE	Section type
5	(5)	ADDRESS	1	JDXOMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDXOFLG1	Processing flags:
		1... ....		JDXO1NFY	"B'10000000" send notification message to TSO userid as requested
		.1.. ....		JDXO1STR	"B'01000000" start this receiver when OFFLOAD device is started
9	(9)	BITSTRING	1	JDXODISP	Post-offload job disposition:
		.... ...1		JDXODDEL	"X'01" DELETE
		.... ..1.		JDXODHLD	"X'02" HOLD
		.... ...11		JDXODKP	"X'03" KEEP
10	(A)	BITSTRING	2		Reserved
Values for attributes used for work selection					
12	(C)	CHARACTER	8	JDXOWOWN	Name of job owner
20	(14)	CHARACTER	8	JDXOWJBN	Job name
28	(1C)	CHARACTER	8	JDXOWSVN	Service class name
36	(24)	CHARACTER	16	JDXOWSCH	Scheduling environment
52	(34)	SIGNED	4	(0)	Job id range for work selection:
52	(34)	SIGNED	4	JDXOWJIL	job id low limit
56	(38)	SIGNED	4	JDXOWJIH	job id high limit
60	(3C)	SIGNED	4	(0)	Job size range for work selection (records):
60	(3C)	SIGNED	4	JDXOWJSL	job size low limit
64	(40)	SIGNED	4	JDXOWJSH	job size high limit
68	(44)	BITSTRING	1	JDXOWFLG	Work selection flags:
		1... ....		JDXOWHLD	"B'10000000" Select held (HOLD=YES)
		.1.. ....		JDXOWRLS	"B'01000000" Select non held (HOLD=NO) If neither bit set, select none (HOLD=NONE)
		..1. ....		JDXOFANY	"B'00100000" Default member affinity is ANY. (also see section starting with field JDXOWMBO).
		...1 ....		JDXOWJOB	"B'00010000" Job ID range is for JOB
		.... 1...		JDXOWSTC	"B'00001000" Job ID range is for STC
		.... .1..		JDXOWTSU	"B'00000100" Job ID range is for TSU
69	(45)	BITSTRING	3		Reserved
Array of job classes This is a variable size array of fixed-size character strings which represent names of job classes or job class groups. The class array can also be viewed as a single string, which starts JDXOWCLO bytes from JDXOJXMT and which length is JDXOWCL# JDXOWCLL.					
72	(48)	ADDRESS	2	JDXOWCLO	Offset from the beginning of DSECT to the first job class name
74	(4A)	ADDRESS	2	JDXOWCL#	Number of elements in array

Table 265. Structure JDXOJXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
76	(4C)	ADDRESS	2	JDXOWCLL	Length of each element
Array of routing codes/destination ids This is variable size array of fixed-size character strings which represent routing codes or destination ids.					
78	(4E)	ADDRESS	2	JDXOWDSO	Offset from the beginning of DSECT to the first route code/dest id
80	(50)	ADDRESS	2	JDXOWDS#	Number of elements in array
82	(52)	ADDRESS	2	JDXOWDSL	Length of each element
Array of binary route codes for work selection This is variable size array of fixed-size structures, mapped by the JDD2DEST structure, of binary route codes used for work selection.					
84	(54)	ADDRESS	2	JDXOWRCO	Offset from the beginning of DSECT to the first route code
86	(56)	ADDRESS	2	JDXOWRC#	Number of elements in array
88	(58)	ADDRESS	2	JDXOWRCL	Length of each element
Array of MAS member names for work selection (member affinity) This is variable size array of fixed-size character strings which represent MAS member names used for work selection. NOTE: Check the JDXOFANY bit first before using these fields.					
90	(5A)	ADDRESS	2	JDXOWMBO	Offset from the beginning of DSECT to the first MAS member name
92	(5C)	ADDRESS	2	JDXOWMB#	Number of elements in array
94	(5E)	ADDRESS	2	JDXOWMBL	Length of each element
Array of spool volume names for work selection This is variable size array of fixed-size character strings which represent spool volume names used for work selection.					
96	(60)	ADDRESS	2	JDXOWVLO	Offset from the beginning of DSECT to the first volume name
98	(62)	ADDRESS	2	JDXOWVL#	Number of elements in array
100	(64)	ADDRESS	2	JDXOWVLL	Length of each element
102	(66)	BITSTRING	2		Reserved
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
104	(68)	ADDRESS	2	JDXOWSCO	Offset from the beginning of DSECT to the work selection string
106	(6A)	ADDRESS	2	JDXOWSCL	Length of the work selection string
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
108	(6C)	ADDRESS	2	JDXOWSEO	Offset from the beginning of DSECT to the work selection array
110	(6E)	ADDRESS	2	JDXOWSEL	Length of the work selection array

Table 265. Structure JDXOJXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
110	(6E)	X'70'	0	JDXOSIZE	"*-JDXOJXMT" Size of job transmitter OFFLOAD section (internal use only)

Table 266. Structure JDX2JXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDX2JXMT	, Job xmitter JES2 section
0	(0)	ADDRESS	4	JDX2LNG	Length of this section
4	(4)	ADDRESS	1	JDX2TYPE	Section type
5	(5)	ADDRESS	1	JDX2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDX2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDX2SIZE	"*-JDX2JXMT" Size of Job xmitter JES2 section (internal use only)

Table 267. Structure JDYHSXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDYHSXMT	, SYSOUT transmitter header
0	(0)	CHARACTER	8	JDYHEYE	Eye catcher
8	(8)	ADDRESS	2	JDYHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDYHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDYHJPLX	"JDYHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDYHNEX8	Address of header of the next device
24	(18)	X'1C'	0	JDYHNEXT	"JDYHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDYHPAR8	Address of parent device (offload, line or NJE conn)
32	(20)	X'24'	0	JDYHPARN	"JDYHPAR8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDYHSIZE	"*-JDYHSXMT" Header size (internal use only)

Table 268. Structure JDYCSXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDYCSXMT	, SYSOUT transmitter common section
0	(0)	ADDRESS	4	JDYCLNG	Length of this section
4	(4)	ADDRESS	1	JDYCTYPE	Section type
5	(5)	ADDRESS	1	JDYCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDYCDEV	Device type
9	(9)	ADDRESS	1	JDYCDEVC	Device class: JDDCNJE for NJE devices JDDCOFLD for OFFLOAD devices
10	(A)	CHARACTER	10	JDYCNAME	Device name
20	(14)	BITSTRING	8		Reserved
28	(1C)	BITSTRING	2	JDYCSTAT(0)	Device status: (see common device status flags)

Table 268. Structure JDYCSXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	BITSTRING	1	JDYCSTA1	first status byte
29	(1D)	BITSTRING	1	JDYCSTA2	second status byte
30	(1E)	CHARACTER	8	JDYCSYSN	Owning MVS system name
38	(26)	CHARACTER	8	JDYCMBRN	JESplex member name
46	(2E)	CHARACTER	8	JDYCSECL	Security label
54	(36)	BITSTRING	2		Reserved
56	(38)	CHARACTER	8	JDYCCSTA	Status, character value
56	(38)	X'40'	0	JDYCSIZE	"*-JDYCSXMT" Size of SYSOUT transmitter common section (internal use only)

Table 269. Structure JDYNSXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDYNSXMT	, SYSOUT transmitter NJE section
0	(0)	ADDRESS	4	JDYNLNG	Length of this section
4	(4)	ADDRESS	1	JDYNTYPE	Section type
5	(5)	ADDRESS	1	JDYNMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
Values for attributes used for work selection					
8	(8)	SIGNED	4	(0)	Dataset size range for work selection (records):
8	(8)	SIGNED	4	JDYNWDSL	dataset size low limit
12	(C)	SIGNED	4	JDYNWDSH	dataset size high limit
16	(10)	SIGNED	4	(0)	SYSOUT size range for work selection (pages):
16	(10)	SIGNED	4	JDYNWPLL	page limit - low limit
20	(14)	SIGNED	4	JDYNWPLH	page limit - high limit
24	(18)	BITSTRING	1	JDYNFLAG	Work selection flags:
	1... ....			JDYNFODH	"B'10000000'" select output with OUTDISP=HOLD
	.1.. ....			JDYNFODK	"B'01000000'" select output with OUTDISP=KEEP
	..1. ....			JDYNFODL	"B'00100000'" select output with OUTDISP=LEAVE
	...1 ....			JDYNFODW	"B'00010000'" select output with OUTDISP=WRITE
25	(19)	BITSTRING	3		Reserved
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
28	(1C)	ADDRESS	2	JDYNWSCO	Offset from the beginning of DSECT to the work selection string
30	(1E)	ADDRESS	2	JDYNWSCL	Length of the work selection string

Table 269. Structure JDYNSXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
32	(20)	ADDRESS	2	JDYNWSEO	Offset from the beginning of DSECT to the work selection array
34	(22)	ADDRESS	2	JDYNWSEL	Length of the work selection array
34	(22)	X'24'	0	JDYNSIZE	"*-JDYNSXMT" Size of SYSOUT transmitter NJE section (internal use only)

Table 270. Structure JDYOSXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDYOSXMT	, SYSOUT transmitter OFFLOAD section
0	(0)	ADDRESS	4	JDYOLNG	Length of this section
4	(4)	ADDRESS	1	JDYOTYPE	Section type
5	(5)	ADDRESS	1	JDYOMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDY0FLG1	Processing flags:
		1... ....		JDY01NFY	"B'10000000" send notification message to TSO userid as requested
		.1.. ....		JDY01STR	"B'01000000" start this transmitter when OFFLOAD device is started
9	(9)	BITSTRING	1	JDY0DISP	Post-offload SYSOUT disposition:
		.... ...1		JDY0DDEL	"X'01" DELETE
		.... ...1.		JDY0DHLD	"X'02" HOLD
		.... ...11		JDY0DKP	"X'03" KEEP
10	(A)	BITSTRING	2		Reserved
Values for attributes used for work selection					
12	(C)	CHARACTER	4	JDYOWFCB	FCB name
16	(10)	CHARACTER	4	JDYOWFLH	Flash id
20	(14)	CHARACTER	8	JDYOWOWN	Dataset owner/creator
28	(1C)	CHARACTER	8	JDYOWJBN	Job name
36	(24)	SIGNED	4	(0)	Dataset size for work selection (records):
36	(24)	SIGNED	4	JDYOWDLL	dataset size low limit
40	(28)	SIGNED	4	JDYOWDHL	dataset size high limit
44	(2C)	SIGNED	4	(0)	SYSOUT size for work selection (pages):
44	(2C)	SIGNED	4	JDYOWPLL	page limit - low limit
48	(30)	SIGNED	4	JDYOWPLH	page limit - high limit
52	(34)	SIGNED	4	(0)	Job id range for work selection:
52	(34)	SIGNED	4	JDYOWJIL	job id low limit
56	(38)	SIGNED	4	JDYOWJIH	job id high limit
60	(3C)	CHARACTER	4	JDYOWUCS	UCS name
64	(40)	CHARACTER	4		Reserved

Table 270. Structure JDYOSXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
68	(44)	CHARACTER	8	JDYOWWTR	Writer name
76	(4C)	ADDRESS	1	JDYOWPTY	Output priority
77	(4D)	BITSTRING	1	JDYOWFLG	Work selection flags
		1... ....		JDYOWBRS	"B'10000000'" select SYSOUT with BURST=YES (if not set - select BURST=NO)
		.1.. ....		JDYOWHLD	"B'01000000'" select output which is held (if not set - select output which is not held)
		..1. ....		JDYOWODH	"B'00100000'" select output with OUTDISP=HOLD
		...1 ....		JDYOWODK	"B'00010000'" select output with OUTDISP=KEEP
		.... 1...		JDYOWODL	"B'00001000'" select output with OUTDISP=LEAVE
		.... .1..		JDYOWODW	"B'00000100'" select output with OUTDISP=WRITE
		.... ..1.		JDYOWBNS	"B'00000010'" BURST value was not set (ignore JDYOWBRS)
		.... ...1		JDYOWHNS	"B'00000001'" HOLD value was not set (ignore JDYOWHLD)
Array of output classes This is a variable size array of fixed-size character strings which represent names of output classes.					
78	(4E)	ADDRESS	2	JDYOWCLO	Offset from the beginning of DSECT to the first output class
80	(50)	ADDRESS	2	JDYOWCL#	Number of elements in array
82	(52)	ADDRESS	2	JDYOWCLL	Length of each element
Array of form names This is a variable size array of fixed-size character strings which represent form names.					
84	(54)	ADDRESS	2	JDYOWFMO	Offset from the beginning of DSECT to the first form name
86	(56)	ADDRESS	2	JDYOWFM#	Number of elements in array
88	(58)	ADDRESS	2	JDYOWFML	Length of each element
Array of processing modes This is a variable size array of fixed-size character strings which represent names of processing modes.					
90	(5A)	ADDRESS	2	JDYOWPMO	Offset from the beginning of DSECT to the first processing mode name
92	(5C)	ADDRESS	2	JDYOWPM#	Number of elements in array
94	(5E)	ADDRESS	2	JDYOWPML	Length of each element
Array of routing codes/destination ids. This is variable size array of fixed-size character strings which represent routing codes or destination ids.					
96	(60)	ADDRESS	2	JDYOWDSO	Offset from the beginning of DSECT to the first route code/dest id
98	(62)	ADDRESS	2	JDYOWDS#	Number of elements in array
100	(64)	ADDRESS	2	JDYOWDSL	Length of each element

Table 270. Structure JDYOSXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Array of binary route codes for work selection This is variable size array of fixed-size structures, mapped by the JDD2DEST structure, of binary route codes used for work selection.					
102	(66)	ADDRESS	2	JDYOWRCO	Offset from the beginning of DSECT to the first route code
104	(68)	ADDRESS	2	JDYOWRC#	Number of elements in array
106	(6A)	ADDRESS	2	JDYOWRCL	Length of each element
Array of spool volume names for work selection This is variable size array of fixed-size character strings which represent spool volume names used for work selection.					
108	(6C)	ADDRESS	2	JDYOWVLO	Offset from the beginning of DSECT to the first volume name
110	(6E)	ADDRESS	2	JDYOWVL#	Number of elements in array
112	(70)	ADDRESS	2	JDYOWVLL	Length of each element
114	(72)	BITSTRING	2		Reserved
Work selection criteria in printable form. The work selection criteria string is represented in the format which would be used by appropriate JES configuration command.					
116	(74)	ADDRESS	2	JDYOWSCO	Offset from the beginning of DSECT to the work selection string
118	(76)	ADDRESS	2	JDYOWSCL	Length of the work selection string
Work selection criteria in encoded form. The work selection criteria is encoded as an array of bytes, where the value of each byte represents an attribute used for work selection. (See symbol definitions for work selection attributes - JDWSxxxx.)					
120	(78)	ADDRESS	2	JDYOWSEO	Offset from the beginning of DSECT to the work selection array
122	(7A)	ADDRESS	2	JDYOWSEL	Length of the work selection array
More work selection flags:					
124	(7C)	BITSTRING	1	JDYOWFL2	More Work Selection flags:
		1... ....		JDY02JOB	"B'10000000" Job ID range is for JOB
		.1.. ....		JDY02STC	"B'01000000" Job ID range is for STC
		..1. ....		JDY02TSU	"B'00100000" Job ID range is for TSU
125	(7D)	BITSTRING	3		Reserved
125	(7D)	X'80'	0	JDY0SIZE	"*-JDYOSXMT" Size of SYSOUT transmitter OFFLOAD section (internal use only)

Table 271. Structure JDY2SXMT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDY2SXMT	, SYSOUT xmitter device JES2 section
0	(0)	ADDRESS	4	JDY2LNG	Length of this section
4	(4)	ADDRESS	1	JDY2TYPE	Section type
5	(5)	ADDRESS	1	JDY2MOD	Section type modifier



Table 271. Structure JDY2SXMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	3	JDY2DVID	Binary device id
11	(B)	BITSTRING	1		Reserved
11	(B)	X'C'	0	JDY2SIZE	"*-JDY2SXMT" Size of SYSOUT xmitter JES2 section (internal use only)

Table 272. Structure JDJHNJEC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDJHNJEC	, NJE connection header
0	(0)	CHARACTER	8	JDJHEYE	Eye catcher
8	(8)	ADDRESS	2	JDJHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	1	JDJHFLAG	Header flags:
		1... ....		JDJHFHCN	"B'10000000'" this header has continuation
		.1... ....		JDJHFICN	"B'01000000'" this header is continuation
11	(B)	BITSTRING	1		Reserved
12	(C)	SIGNED	4	JDJHDEV#	Number of related devices in the chain (see JDJHDEV8)
16	(10)	ADDRESS	8	JDJHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDJHJPLX	"JDJHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDJHNEX8	Address of header of the next NJE connection
24	(18)	X'1C'	0	JDJHNEXT	"JDJHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDJHDEV8	Address of header of the first related device
32	(20)	X'24'	0	JDJHDEVC	"JDJHDEV8+4,4,C'A'" 31-bit part of the pointer
40	(28)	ADDRESS	8	JDJHCON8	Address of continuation header
40	(28)	X'2C'	0	JDJHCONT	"JDJHCON8+4,4,C'A'" 31-bit part of the pointer
40	(28)	X'30'	0	JDJHSIZE	"*-JDJHNJEC" Header size (internal use only)

Table 273. Structure JDJCNJEC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDJCNJEC	, NJE connection common section
0	(0)	ADDRESS	4	JDJCLNG	Length of this section
4	(4)	ADDRESS	1	JDJCTYPE	Section type
5	(5)	ADDRESS	1	JDJCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDJCNAME	NJE connection name
16	(10)	CHARACTER	8	JDJCSYSN	Owning MVS system name
24	(18)	CHARACTER	8	JDJCMBRN	JESplex member name
32	(20)	CHARACTER	8	JDJCADJN	Adjacent node name
40	(28)	CHARACTER	8	JDJCNDL	Adjacent node security label

Table 273. Structure JDJCNJEC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	BITSTRING	2	JDJCSTAT(0)	NJE connection status: (see common device status flags)
48	(30)	BITSTRING	1	JDJCSTA1	first status byte
49	(31)	BITSTRING	1	JDJCSTA2	second status byte
50	(32)	ADDRESS	1	JDJCPROT	Communication protocol type:
		.... ..1		JDJCPBSC	"X'01'" BSC
		.... ..1.		JDJCPSNA	"X'02'" SNA
		.... ..11		JDJCPTCP	"X'03'" TCP/IP
51	(33)	BITSTRING	1	JDJCFLAG	Processing flags:
		1... ....		JDJCFAUT	"B'10000000'" auto restart
		.1.. ....		JDJCFTRB	"B'01000000'" basic trace requested
		..1. ....		JDJCFTCM	"B'00100000'" common code trace requested
		...1 ....		JDJCFTEX	"B'00010000'" extended trace requested
		.... 1...		JDJCFCND	"B'00001000'" auto connect required (CONNECT=YES)
		.... .1..		JDJCFCNA	"B'00000100'" auto connect not required (CONNECT=NO) if both JDJCFCNA and JDJCFCNN are off, CONNECT=DEFAULT
52	(34)	CHARACTER	10	JDJCNAM2	Associated device name: - line device name for BSC - logon device name for SNA - NETSRV name for TCP/IP
62	(3E)	SIGNED	2	JDJCRINT	Auto restart interval (minutes)
64	(40)	SIGNED	2	JDJCRETR	Max number of restart retries (0 - indefinite retry)
66	(42)	SIGNED	2	JDJCSTR#	Number of SYSOUT transmitters
68	(44)	SIGNED	2	JDJCSRC#	Number of SYSOUT receivers
70	(46)	SIGNED	2	JDJCJTR#	Number of job transmitters
72	(48)	SIGNED	2	JDJCJRC#	Number of job receivers
74	(4A)	BITSTRING	2		Reserved
76	(4C)	BITSTRING	4	JDJCSKID	TCP/IP socket ID assigned by NETSRV (NJE over TCP/IP)
80	(50)	CHARACTER	8	JDJCCSTA	Status, character value
80	(50)	X'58'	0	JDJCSIZE	"*-JDJCNJEC" Size of NJE connection common section (internal use only)

Table 274. Structure JDWHRMTW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDWHRMTW	, Remote workstation data header
0	(0)	CHARACTER	8	JDWHEYE	Eye catcher
8	(8)	ADDRESS	2	JDWHOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	2		Reserved
12	(C)	SIGNED	4	JDWHDEV#	Number of related devices in the chain (see JDWHDEV8)
16	(10)	ADDRESS	8	JDWHJPL8	Address of IAZJPLXI for this device
16	(10)	X'14'	0	JDWHJPLX	"JDWHJPL8+4,4,C'A'" 31-bit part of a pointer
24	(18)	ADDRESS	8	JDWHNEX8	Address of header of the next remote workstation

Table 274. Structure JDWHRMTW (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	X'1C'	0	JDWHNEXT	"JDWHNEX8+4,4,C'A'" 31-bit part of the pointer
32	(20)	ADDRESS	8	JDWHDEV8	Address of header of the first related device
32	(20)	X'24'	0	JDWHDEVC	"JDWHDEV8+4,4,C'A'" 31-bit part of the pointer
32	(20)	X'28'	0	JDWHSIZE	"*-JDWHRMTW" Header size (internal use only)

Table 275. Structure JDWCRMTW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDWCRMTW	, Remote workstation common section
0	(0)	ADDRESS	4	JDWCLNG	Length of this section
4	(4)	ADDRESS	1	JDWCTYPE	Section type
5	(5)	ADDRESS	1	JDWCMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	10	JDWCNAME	Remote workstation name
18	(12)	CHARACTER	8	JDWCYSYN	Owning MVS system name
26	(1A)	CHARACTER	8	JDWCMBRN	JESplex member name
34	(22)	CHARACTER	8	JDWCDEVT	Remote workstation device type
42	(2A)	BITSTRING	2	JDWCSTAT(0)	Remote workstation status: (see common device status flags)
42	(2A)	BITSTRING	1	JDWCSTA1	first status byte
43	(2B)	BITSTRING	1	JDWCSTA2	second status byte
44	(2C)	ADDRESS	1	JDWCPROT	Connection protocol type:
		.... ...1		JDWCPBSC	"X'01'" BSC
		.... ...1.		JDWCPSNA	"X'02'" SNA
45	(2D)	BITSTRING	1	JDWCFLAG	Processing flags:
		1... ....		JDWCFCMP	"B'10000000" compression supported
		.1.. ....		JDWCFCNS	"B'01000000" workstation has console
		..1. ....		JDWCFMSG	"B'00100000" messages will be printed if console is not available
		...1 ....		JDWCFPWD	"B'00010000" password set indicator
46	(2E)	CHARACTER	10	JDWCLINE	Associated line device name
56	(38)	SIGNED	2	JDWCBUFS	Buffer size (bytes)
58	(3A)	SIGNED	2	JDWCDSCI	Disconnect interval (seconds)
60	(3C)	SIGNED	2	JDWCRTC	Route code
62	(3E)	SIGNED	2	JDWCCRTC	Console route code
64	(40)	ADDRESS	1	JDWCWTIM	Wait time (seconds)
65	(41)	ADDRESS	1	JDWCPRT#	Number of attached printers
66	(42)	ADDRESS	1	JDWCPUN#	Number of attached punches
67	(43)	ADDRESS	1	JDWCRDR#	Number of attached readers
68	(44)	CHARACTER	8	JDWCCSTA	Status, character value
68	(44)	X'4C'	0	JDWCSize	"*-JDWCRMTW" Size of remote ws common section (internal use only)

Table 276. Structure JDWNSNA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDWNSNA	, Remote workstation SNA section
0	(0)	ADDRESS	4	JDWNLNG	Length of this section
4	(4)	ADDRESS	1	JDWNTYPE	Section type
5	(5)	ADDRESS	1	JDWNMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDWNLUNM	SNA LU name
16	(10)	CHARACTER	10	JDWNLOGN	Logon device name
26	(1A)	BITSTRING	1	JDWNFLAG	Processing flags:
		1... ....		JDWNFLGN	"B'10000000" enable automatic logon
		.1.. ....		JDWNFCMP	"B'01000000" use compaction
		..1. ....		JDWNFMSG	"B'00100000" send setup request via message (if not set - send via PDIR)
27	(1B)	BITSTRING	1		Reserved
27	(1B)	X'1C'	0	JDWNSIZE	"*-JDWNSNA" Size of remote workstation SNA section (internal use only)

Table 277. Structure JDWBSC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDWBSC	, Remote workstation data for BSC
0	(0)	ADDRESS	4	JDWBLNG	Length of this section
4	(4)	ADDRESS	1	JDWBTYPE	Section type
5	(5)	ADDRESS	1	JDWBMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDWBFLG1	Processing flags (1):
		1... ....		JDWB1BEX	"B'10000000" buffer expansion feature
		.1.. ....		JDWB1BXA	"B'01000000" additional buffer expansion feature
		..1. ....		JDWB1BLK	"B'00100000" blocked data record format
		...1 ....		JDWB1HTB	"B'00010000" horizontal tabs feature
		.... 1...		JDWB1MFJ	"B'00001000" add job name to messages
		.... .1..		JDWB1MFT	"B'00000100" add time stamp to messages
		.... ..1.		JDWB1MRF	"B'00000010" multi-record feature
		.... ...1		JDWB1MLV	"B'00000001" multi-leaving capability
9	(9)	BITSTRING	1	JDWBFLG2	Processing flags (2):
		1... ....		JDWB2VAR	"B'10000000" variable length record format (if not set - fixed length format)
		.1.. ....		JDWB2TPY	"B'01000000" text transparency feature
		..1. ....		JDWB2SHR	"B'00100000" shared line definition (multiple workstations can use the same line definition)
10	(A)	BITSTRING	2		Reserved
10	(A)	X'C'	0	JDWBSCSIZE	"*-JDWBSC" Size of remote ws BSC section (internal use only)

Table 278. Structure JDW2RMTW

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDW2RMTW	, Remote workstation data for JES2
0	(0)	ADDRESS	4	JDW2LNG	Length of this section
4	(4)	ADDRESS	1	JDW2TYPE	Section type
5	(5)	ADDRESS	1	JDW2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	BITSTRING	1	JDW2FLAG	Processing flags:
		1... ....		JDW2F150	"B'10000000" send HASP150 message to this workstation in addition to local operator
		.1... ....		JDW2F190	"B'01000000" HASP190 message type is ACTION (if not set - INFO)
9	(9)	BITSTRING	3		Reserved
9	(9)	X'C'	0	JDW2SIZE	"*-JDW2RMTW" Size of remote ws JES2 section (internal use only)

Table 279. Structure JDAPPLIC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDAPPLIC	, SNA application section
0	(0)	ADDRESS	4	JDAPLNG	Length of this section
4	(4)	ADDRESS	1	JDAPTYPE	Section type
5	(5)	ADDRESS	1	JDAPMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDAPNAME	VTAM application name
16	(10)	CHARACTER	8	JDAPLOGM	VTAM logmode
24	(18)	SIGNED	2	JDAPREST	Application resistance
26	(1A)	BITSTRING	2		Reserved
28	(1C)	CHARACTER	8	JDAPCMPT	Compaction table name
28	(1C)	X'24'	0	JDAPSIZE	"*-JDAPPLIC" Size of SNA application section (internal use only)

Table 280. Structure JDA2APPL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDA2APPL	, SNA application JES2 section
0	(0)	ADDRESS	4	JDA2LNG	Length of this section
4	(4)	ADDRESS	1	JDA2TYPE	Section type
5	(5)	ADDRESS	1	JDA2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	10	JDA2LNAM	Associated line name
18	(12)	CHARACTER	10	JDA2LGNM	Associated logon name
28	(1C)	BITSTRING	3	JDA2LNDV	Associated line device id
31	(1F)	BITSTRING	3	JDA2LGDV	Associated logon device id
34	(22)	BITSTRING	2		Reserved
34	(22)	X'24'	0	JDA2SIZE	"*-JDA2APPL" Size of SNA application JES2 section (internal use only)

Table 281. Structure JDSKSOCK

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDSKSOCK	, TCP socket section
0	(0)	ADDRESS	4	JDSKLNG	Length of this section
4	(4)	ADDRESS	1	JDSKTYPE	Section type
5	(5)	ADDRESS	1	JDSKMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDSKNAME	Socket name
16	(10)	ADDRESS	2	JDSKIHNO	Offset to the IP host name from the section start
18	(12)	ADDRESS	2	JDSKIHLN	Length of the IP host name
20	(14)	BITSTRING	16	JDSKIADR	IP address
36	(24)	BITSTRING	16	JDSKTPNM	TCP port name
52	(34)	ADDRESS	2	JDSKTPNR	TCP port number
54	(36)	CHARACTER	10	JDSKNSRV	NETSRV name
64	(40)	BITSTRING	1	JDSKFLAG	Socket flags:
	1... ....			JDSKFTLS	"B'10000000" secure socket (TLS)
	.1.. ....			JDSKFSRV	"B'01000000" server-type socket - dynamically created for inbound (passive) TCP connections
65	(41)	BITSTRING	3		Reserved
65	(41)	X'44'	0	JDSKSIZE	"*-JDSKSOCK" Size of socket data section (internal use only)

Table 282. Structure JDK2SOCK

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDK2SOCK	, TCP socket JES2 section
0	(0)	ADDRESS	4	JDK2LNG	Length of this section
4	(4)	ADDRESS	1	JDK2TYPE	Section type
5	(5)	ADDRESS	1	JDK2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	10	JDK2LNAM	Associated line name
18	(12)	BITSTRING	3	JDK2LNDV	Associated line device id
21	(15)	BITSTRING	3	JDK2NSDV	Associated NETSRV device id
24	(18)	BITSTRING	2	JDK2REST	Socket resistance
26	(1A)	BITSTRING	2		Reserved
26	(1A)	X'1C'	0	JDK2SIZE	"*-JDK2SOCK" Size of socket data JES2 section (internal use only)

Table 283. Structure JDNRRNODE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDNRRNODE	, Reachable NJE nodes section
0	(0)	ADDRESS	4	JDNRLNG	Length of this section
4	(4)	ADDRESS	1	JDNRTYPE	Section type
5	(5)	ADDRESS	1	JDNRMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	2	JDNROENT	Offset to the first entry
10	(A)	ADDRESS	2	JDNRNENT	Number of entries (nodes) reported in this fragment

Table 283. Structure JDNRNODE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	ADDRESS	2	JDNRSENT	Size of each node entry (mapped by JDINODE DSECT)
14	(E)	ADDRESS	2	JDNR1ENT	Index of the first entry reported in this fragment
16	(10)	BITSTRING	1	JDNRFLAG	Flags:
		1... ....		JDNRFHCHN	"B'10000000" this section has continuation
		.1.. ....		JDNRFICN	"B'01000000" this section is continuation
17	(11)	BITSTRING	3		Reserved
17	(11)	X'14'	0	JDNRSIZE	"*-JDNRNODE" Size of reachable NJE nodes section (internal use only)

Table 284. Structure JDINODE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDINODE	, NJE node information entry
0	(0)	CHARACTER	8	JDINNAME	Node name
8	(8)	BITSTRING	1	JDNIFLAG	Node connection status:
		1... ....		JDNIFACT	"B'10000000" active
		.1.. ....		JDNIFPND	"B'01000000" pending
8	(8)	X'9'	0	JDNISIZE	"*-JDINODE" Size of NJE node information entry (internal use only)

Table 285. Structure JDALULST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDALULST	, Active LU list section
0	(0)	ADDRESS	4	JDALLNG	Length of this section
4	(4)	ADDRESS	1	JDALTYPE	Section type
5	(5)	ADDRESS	1	JDALMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	2	JDALOENT	Offset to the first entry
10	(A)	ADDRESS	2	JDALNENT	Number of entries (LUs) reported in this fragment
12	(C)	ADDRESS	2	JDALSENT	Size of each LU entry (mapped by JDAILUEN DSECT)
14	(E)	ADDRESS	2	JDAL1ENT	Index of the first entry reported in this fragment
16	(10)	BITSTRING	1	JDALFLAG	Flags:
		1... ....		JDALFHCHN	"B'10000000" this section has continuation
		.1.. ....		JDALFICN	"B'01000000" this section is continuation
17	(11)	BITSTRING	3		Reserved
17	(11)	X'14'	0	JDALSIZE	"*-JDALULST" Size of active LU list section (internal use only)

Table 286. Structure JDAILUEN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDAILUEN	, LU information entry

Table 286. Structure JDAILUEN (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	8	JDAINAME	LU name
8	(8)	CHARACTER	10	JDAIDNAM	Associated device name
8	(8)	X'12'	0	JDAISIZE	"*-JDAILUEN" Size of LU information entry (internal use only)

Table 287. Structure JDASOCKL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDASOCKL	, Active sockets section
0	(0)	ADDRESS	4	JDASLNG	Length of this section
4	(4)	ADDRESS	1	JDASTYPE	Section type
5	(5)	ADDRESS	1	JDASMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	2	JDASOENT	Offset to the first entry
10	(A)	ADDRESS	2	JDASNENT	Number of entries (sockets) reported in this fragment
12	(C)	ADDRESS	2	JDASSENT	Size of each socket entry (mapped by JDAESKEN DSECT)
14	(E)	ADDRESS	2	JDAS1ENT	Index of the first entry reported in this fragment
16	(10)	BITSTRING	1	JDASFLAG	Flags:
		1... ....		JDASFHCN	"B'10000000" this section has continuation
		.1... ....		JDASFICN	"B'01000000" this section is continuation
17	(11)	BITSTRING	3		Reserved
17	(11)	X'14'	0	JDASSIZE	"*-JDASOCKL" Size of active sockets section (internal use only)

Table 288. Structure JDAESKEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDAESKEN	, Socket information entry
0	(0)	CHARACTER	8	JDAENAME	Socket name
8	(8)	CHARACTER	10	JDAEDNAM	Associated device name
18	(12)	CHARACTER	4	JDAESKID	Socket id assigned by NETSRV
18	(12)	X'16'	0	JDAESIZE	"*-JDAESKEN" Size of socket information entry (internal use only)

Table 289. Structure JDJBINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDJBINFO	, Job information section
0	(0)	ADDRESS	4	JDJBLNG	Length of this section
4	(4)	ADDRESS	1	JDJBTYPE	Section type
5	(5)	ADDRESS	1	JDJBMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDJBJOBIN	Name of the job being processed
16	(10)	CHARACTER	8	JDJBJOBI	Job id of the job being processed
24	(18)	SIGNED	4	JDJBJNUM	Job number of job being processed



Table 289. Structure JDJBINFO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	CHARACTER	8	JDJBOWNN	Name of the owner/creator of the job/ SYSOUT dataset being processed
36	(24)	CHARACTER	8	JDJBOWSL	Security label of the owner/creator
44	(2C)	CHARACTER	8	JDJBJOBBC	Job class of the job being processed
52	(34)	BITSTRING	1	JDJBPRIO	Job priority
53	(35)	BITSTRING	1	JDJBJTYP	Job type
53	(35)	X'1'	0	JDJBSTC	"1" Started Task (STC)
53	(35)	X'2'	0	JDJBTSU	"2" Time Sharing User (TSU)
53	(35)	X'3'	0	JDJBJOB	"3" Batch job (JOB)
54	(36)	BITSTRING	2		Reserved
Job-level progress counters (for devices which process jobs rather than SYSOUT)					
56	(38)	SIGNED	4	JDJBTRC#	Total records in job
60	(3C)	SIGNED	4	JDJBPRC#	Number of records processed
60	(3C)	X'40'	0	JDJBSize	"*-JDJBINFO" Size of job information section (internal use only)

Table 290. Structure JDUTINFO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDUTINFO	, Output information section
0	(0)	ADDRESS	4	JDUTLNG	Length of this section
4	(4)	ADDRESS	1	JDUTTYPE	Section type
5	(5)	ADDRESS	1	JDUTMOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	8	JDUTOUTC	Output class of the SYSOUT dataset being processed
16	(10)	CHARACTER	8	JDUTFORM	Current forms
24	(18)	CHARACTER	8	JDUTPRMD	Current PRMODE
32	(20)	CHARACTER	8	JDUTWRTN	Current Writer name
40	(28)	CHARACTER	8	JDUTTJBN	Transaction job name
48	(30)	CHARACTER	8	JDUTTWKI	Transaction work id
56	(38)	CHARACTER	4	JDUTFLSH	Current FLASH
60	(3C)	CHARACTER	4	JDUTFCB	Current FCB
64	(40)	CHARACTER	4	JDUTUCS	Current UCS
68	(44)	CHARACTER	18	JDUTDEST	Current destination
86	(56)	BITSTRING	1	JDUTPRIO	Output priority
87	(57)	BITSTRING	1	JDUTFLG1	Flags
		1... ....		JDUT1BRS	"B'10000000'" Burst setting (ON=YES, OFF=NO)
Progress counters of active SYSOUT dataset					
88	(58)	SIGNED	4	JDUTTPG#	Total pages in SYSOUT dataset
92	(5C)	SIGNED	4	JDUTPPG#	Number of pages processed
96	(60)	SIGNED	4	JDUTTRC#	Total records in SYSOUT dataset
100	(64)	SIGNED	4	JDUTPRC#	Number of records processed
104	(68)	CHARACTER	8	JDUTTOWN	Transaction owner

Table 290. Structure JDUTINFO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
104	(68)	X'70'	0	JDUTSIZE	"*-JDUTINFO" Size of output information section (internal use only)

Table 291. Structure JDU2INFO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDU2INFO	, JES2 output information section
0	(0)	ADDRESS	4	JDU2LNG	Length of this section
4	(4)	ADDRESS	1	JDU2TYPE	Section type
5	(5)	ADDRESS	1	JDU2MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	CHARACTER	12	JDU2JOID(0)	Joe identifier for the unit of work in progress on device
8	(8)	CHARACTER	8	JDU2JOEN	Name of JOE for the unit of work
16	(10)	SIGNED	2	JDU2JOE1	JOE id 1
18	(12)	SIGNED	2	JDU2JOE2	JOE id 2
20	(14)	BITSTRING	8	JDU2IMQT	MQTR of spin IOT (format for spool read SSI)
28	(1C)	CHARACTER	12	JDU2DEST(0)	Binary destination of output
28	(1C)	SIGNED	2	JDU2NDE	Nodal part of binary destination
30	(1E)	SIGNED	2	JDU2RTE	Remote part of binary destination
32	(20)	CHARACTER	8	JDU2USER	Userid part of binary destination
32	(20)	X'28'	0	JDU2SIZE	"*-JDU2INFO" Size of output information section (internal use only)

Table 292. Structure JDU3INFO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDU3INFO	, JES3 output information section
0	(0)	ADDRESS	4	JDU3LNG	Length of this section
4	(4)	ADDRESS	1	JDU3TYPE	Section type
5	(5)	ADDRESS	1	JDU3MOD	Section type modifier
6	(6)	BITSTRING	2		Reserved
8	(8)	ADDRESS	1	JDU3COPY	Copy count
9	(9)	BITSTRING	7		Reserved
9	(9)	X'10'	0	JDU3SIZE	"*-JDU3INFO" Size of output information section (internal use only)

Table 293. Structure JDSIHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JDSIHDR	, System information header
0	(0)	CHARACTER	8	JDSIEYE	Eye-catcher
8	(8)	ADDRESS	2	JDSIOHDR	Offset to first (prefix) section
10	(A)	BITSTRING	6		Reserved
16	(10)	ADDRESS	8	JDSINEX8	Address of next header
16	(10)	X'14'	0	JDSINEXT	"JDSINEX8+4,4,C'A'" 31-bit part of the pointer

Table 293. Structure JDSIHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	X'18'	0	JDSISIZE	"*-JDSIHDR" Header size (internal use only)

Table 294. Structure JDSGSTRG

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JDSGSTRG	, Storage management DSECT
0	(0)	CHARACTER	8	JDSGEYE	Eye-catcher
8	(8)	ADDRESS	2	JDSGSTHL	Length of header area
10	(A)	BITSTRING	1	JDSGSTSP	Subpool of this block
10	(A)	X'E6'	0	JDSGSTPL	"230" Recommended subpool to use
11	(B)	BITSTRING	1		Do not use (was JDSGSTSP)
12	(C)	SIGNED	4	JDSGSTTL	Total length of this block (including this header)
16	(10)	ADDRESS	8	JDSGNEXT	Pointer to next block
24	(18)	ADDRESS	8	JDSGAVL	Ptr to 1st available byte
32	(20)	ADDRESS	4	JDSGDATA(0)	Start of data in the block
32	(20)	X'20'	0	JDSGFSIZE	"*-JDSGSTRG"

Table 295. Cross Reference for IAZSSJD

Name	Offset	Hex	Tag
JDAEDNAM	8		
JDAENAME	0		
JDAESIZE	12		16
JDAESKEN	0		
JDAESKID	12		
JDAIDNAM	8		
JDAILUEN	0		
JDAINAME	0		
JDAISIZE	8		12
JDALFHCN	10		80
JDALFICN	10		40
JDALFLAG	10		
JDALLNG	0		
JDALMOD	5		
JDALNENT	A		
JDALOENT	8		
JDALSENT	C		
JDALSIZE	11		14
JDALTYPE	4		
JDALULST	0		
JDAL1ENT	E		
JDAPCMPT	1C		

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDAPLNG	0	
JDAPLOGM	10	
JDAPMOD	5	
JDAPNAME	8	
JDAPPLIC	0	
JDAPREST	18	
JDAPSIZE	1C	24
JDAPTYPE	4	
JDASFHCN	10	80
JDASFICN	10	40
JDASFLAG	10	
JDASLNG	0	
JDASMOD	5	
JDASNENT	A	
JDASOCKL	0	
JDASOENT	8	
JDASSENT	C	
JDASSIZE	11	14
JDASTYPE	4	
JDAS1ENT	E	
JDA2APPL	0	
JDA2LGDV	1F	
JDA2LGNM	12	
JDA2LNAM	8	
JDA2LNDV	1C	
JDA2LNG	0	
JDA2MOD	5	
JDA2SIZE	22	24
JDA2TYPE	4	
JDBCSTA	3C	
JDBCDEVC	9	
JDBCDEVT	8	
JDBCFLG1	38	
JDBCJRCV	0	
JDBC LNG	0	
JDBCMBRN	26	
JBCMOD	5	
JBCNAME	A	
JBCSECL	2E	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDBCSize	3C	44
JDBCSTAT	1C	
JDBCSTA1	1C	
JDBCSTA2	1D	
JBCSYSN	1E	
JDBCTYPE	4	
JDBC1HLD	38	80
JDBC1RLS	38	40
JDBHEYE	0	D1C4C2C8
JDBHJPLX	10	14
JDBHJPL8	10	
JDBHJRCV	0	
JDBHNEXT	18	1C
JDBHNEX8	18	
JDBHOHDR	8	
JDBHPARN	20	24
JDBHPAR8	20	
JDBHSize	20	28
JDBOEANY	8	20
JDBOFLG1	8	
JDBOJRCV	0	
JDBOLNG	0	
JDBOMJBC	C	
JDBOMMB#	28	
JDBOMMBL	2A	
JDBOMMBO	26	
JDBOMOD	5	
JDBOMROU	14	
JDBOSize	7E	80
JDBOTYPE	4	
JDBOWANY	54	20
JDBOWCL#	62	
JDBOWCLL	64	
JDBOWCLO	60	
JDBOWDS#	68	
JDBOWDSL	6A	
JDBOWDSO	66	
JDBOWFLG	54	
JDBOWHLD	54	80

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDBOWJBN	34	
JDBOWJIH	5C	
JDBOWJIL	58	
JDBOWJOB	54	10
JDBOWMB#	74	
JDBOWMBL	76	
JDBOWMBO	72	
JDBOWOWN	2C	
JDBOWRC#	6E	
JDBOWRCL	70	
JDBOWRCO	6C	
JDBOWRLS	54	40
JDBOWSCH	44	
JDBOWSCL	7A	
JDBOWSCO	78	
JDBOWSEL	7E	
JDBOWSEO	7C	
JDBOWSTC	54	8
JDBOWSVN	3C	
JDBOWTSU	54	4
JDB01NFY	8	80
JDB01STR	8	40
JDB2DVID	8	
JDB2JRCV	0	
JDB2LNG	0	
JDB2MOD	5	
JDB2SIZE	B	C
JDB2TYPE	4	
JDCCCONS	0	
JDCCSTA	38	
JDCCDEVC	9	
JDCCDEVT	8	
JDCCLNG	0	
JDCCMBRN	26	
JDCCMOD	5	
JDCCNAME	A	
JDCCSECL	2E	
JDCCSIZE	38	40
JDCCSTAT	1C	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDCCSTA1	1C	
JDCCSTA2	1D	
JDCCSYSN	1E	
JDCCTYPE	4	
JDCHCONS	0	
JDCHEYE	0	D1C4C3C8
JDCHJPLX	10	14
JDCHJPL8	10	
JDCHNEXT	18	1C
JDCHNEX8	18	
JDCHOHDR	8	
JDCHPARN	20	24
JDCHPAR8	20	
JDCHSIZE	20	28
JDCXDATA	8	
JDCXLNG	0	
JDCXMOD	5	
JDCXPREF	0	
JDCXSIZE	8	8
JDCXTYPE	4	
JDC2CONS	0	
JDC2DVID	8	
JDC2LNG	0	
JDC2MOD	5	
JDC2SIZE	B	C
JDC2TYPE	4	
JDC3AUTH	8	
JDC3CONS	0	
JDC3DST#	14	
JDC3DSTL	16	
JDC3DSTO	12	
JDC3LNG	0	
JDC3MOD	5	
JDC3RTC#	E	
JDC3RTCL	10	
JDC3RTC0	C	
JDC3SIZE	16	18
JDC3TYPE	4	
JDDCIFC	198	2

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDDCINT	198	3
JDDCLCL	198	1
JDDCNJE	198	4
JDDCOFLD	198	5
JDDCRMT	198	6
JDDGCONS	198	10
JDDGIFC	198	20
JDDGLINE	198	30
JDDGOFLD	198	40
JDDGPRT	198	50
JDDGPUN	198	60
JDDGRCV	198	80
JDDGRDR	198	70
JDDGXMT	198	90
JDDTCONS	198	11
JDDTJRCV	198	81
JDDTJXMT	198	91
JDDTLINE	198	31
JDDTLOGN	198	21
JDDTNSRV	198	22
JDDTOFLD	198	41
JDDTPRT	198	51
JDDTPUN	198	61
JDDTRDR	198	71
JDDTSRCV	198	82
JDDTSXMT	198	92
JDD2DEST	0	
JDD2DSIZ	4	C
JDD2NODE	0	
JDD2RTE	2	
JDD2USER	4	
JDGCAPPL	14	
JDGCCSTA	40	
JDGCDEVC	9	
JDGCDEVT	8	
JDGCFAUT	38	20
JDGCFERR	38	80
JDGCFLAG	38	
JDGCFLOG	38	8



Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDGCFPWD	38	40
JDGCFTRC	38	10
JDGCLNG	0	
JDGCLOGN	0	
JDGCMBRN	26	
JDGCMOD	5	
JDGCNAME	A	
JDGCRETR	3C	
JDGCRINT	3A	
JDGCSECL	2E	
JDGCSIZE	40	48
JDGCSTAT	1C	
JDGCSTA1	1C	
JDGCSTA2	1D	
JDGCSYSN	1E	
JDGCTYPE	4	
JDGHCONT	28	2C
JDGHCON8	28	
JDGHEYE	0	D1C4C7C8
JDGHFHCN	A	80
JDGHFICN	A	40
JDGHFLAG	A	
JDGHJPLX	10	14
JDGHJPL8	10	
JDGHLOGN	0	
JDGHNEXT	18	1C
JDGHNEX8	18	
JDGHOHDR	8	
JDGHPARN	20	24
JDGHPAR8	20	
JDGHSIZE	28	30
JDG2DVID	8	
JDG2LNG	0	
JDG2LOGN	0	
JDG2MOD	5	
JDG2SIZE	B	C
JDG2TYPE	4	
JDG3DSPJ	8	
JDG3LNG	0	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDG3LOGN	0	
JDG3MOD	5	
JDG3SIZE	12	14
JDG3SNLM	10	
JDG3TYPE	4	
JDJBINFO	0	
JDJBJNUM	18	
JDJBJOB	35	3
JDJBJOBC	2C	
JDJBJOBI	10	
JDJBJOBN	8	
JDJBJTYP	35	
JDJBLNG	0	
JDJBMOD	5	
JDJBOWNN	1C	
JDJBOWSL	24	
JDJBPRC#	3C	
JDJBPRIO	34	
JDJBSize	3C	40
JDJBSTC	35	1
JDJBTRC#	38	
JDJBTSU	35	2
JDJBTYPE	4	
JDJCADJN	20	
JDJCCSTA	50	
JDJCFAUT	33	80
JDJFCNA	33	4
JDJFCND	33	8
JDJCFLAG	33	
JDJCFTCM	33	20
JDJCFTEx	33	10
JDJCFTRB	33	40
JDJCJRC#	48	
JDJCJTR#	46	
JDJCLNG	0	
JDJCMBRN	18	
JDJCMOD	5	
JDJCNAME	8	
JDJCNAM2	34	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDJCNDL	28	
JDJCNJEC	0	
JDJCPBSC	32	1
JDJCPR0T	32	
JDJCPSNA	32	2
JDJCPTCP	32	3
JDJCRETR	40	
JDJCRINT	3E	
JDJCSIZE	50	58
JDJCSKID	4C	
JDJCSRC#	44	
JDJCSTAT	30	
JDJCSTA1	30	
JDJCSTA2	31	
JDJCSTR#	42	
JDJCSYSN	10	
JDJCTYPE	4	
JDJHCONT	28	2C
JDJHCON8	28	
JDJHDEV#	C	
JDJHDEVC	20	24
JDJHDEV8	20	
JDJHEYE	0	D1C4D1C8
JDJHFHCN	A	80
JDJHFICN	A	40
JDJHFLAG	A	
JDJHJPLX	10	14
JDJHJPL8	10	
JDJHNEXT	18	1C
JDJHNEX8	18	
JDJHNJEC	0	
JDJHOHDR	8	
JDJHSIZE	28	30
JDK2LNAM	8	
JDK2LNDV	12	
JDK2LNG	0	
JDK2MOD	5	
JDK2NSDV	15	
JDK2REST	18	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDK2SIZE	1A	1C
JDK2SOCK	0	
JDK2TYPE	4	
JDLCCINT	40	
JDLCCSTA	44	
JDLCDEVC	9	
JDLCDEVT	8	
JDLCDINT	3B	1
JDLCDISC	3B	
JDLCDNO	3B	0
JDLCDQUI	3B	2
JDL CFLG1	39	
JDL CFLG2	3A	
JDLCLINE	0	
JDLCLNG	0	
JDLCMBRN	26	
JDL CMOD	5	
JDL CNAME	A	
JDL CPBSC	38	1
JDL CPROT	38	
JDL CPSNA	38	2
JDL CPTCP	38	3
JDL CRETR	3E	
JDL CRINT	3C	
JDL CSECL	2E	
JDL CSIZE	44	4C
JDL CSTAT	1C	
JDL CSTA1	1C	
JDL CSTA2	1D	
JDL CSYSN	1E	
JDL CTYPE	4	
JDL CUNIT	14	
JDL C1AUT	39	1
JDL C1CMP	39	8
JDL C1DPX	39	4
JDL C1NJA	39	40
JDL C1NJE	39	10
JDL C1PWD	39	2
JDL C1RJA	39	80

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDLC1RJE	39	20
JDLC2AB	3A	80
JDLC2CNA	3A	4
JDLC2CNN	3A	2
JDLC2TCM	3A	10
JDLC2TEX	3A	8
JDLC2TRB	3A	20
JDLC2TRP	3A	40
JDLHCONT	30	34
JDLHCON8	30	
JDLHDEV#	C	
JDLHDEVC	28	2C
JDLHDEV8	28	
JDLHEYE	0	D1C4D3C8
JDLHFHCN	A	80
JDLHFICN	A	40
JDLHFLAG	A	
JDLHJPLX	10	14
JDLHJPL8	10	
JDLHLINE	0	
JDLHNEXT	18	1C
JDLHNEX8	18	
JDLHOHDR	8	
JDLHPARN	20	24
JDLHPAR8	20	
JDLHSIZE	30	38
JDL2CNAM	8	
JDL2DVID	21	
JDL2FAB	20	10
JDL2FADS	20	80
JDL2FASC	20	8
JDL2FLAG	20	
JDL2FLEA	20	2
JDL2FLOG	20	4
JDL2FSHR	20	40
JDL2FSPH	20	20
JDL2JR#	1D	
JDL2JT#	1C	
JDL2LINE	0	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDL2LNG	0	
JDL2MOD	5	
JDL2NJEN	12	
JDL2REST	1A	
JDL2SIZE	21	24
JDL2SR#	1F	
JDL2ST#	1E	
JDL2TYPE	4	
JDL3BPS	8	
JDL3LINE	0	
JDL3LNG	0	
JDL3MOD	5	
JDL3SIZE	8	C
JDL3TYPE	4	
JDMDAPCM	198	1
JDMDAPJ2	198	20
JDMDCNCM	198	1
JDMDCNJ2	198	20
JDMDCNJ3	198	30
JDMDCNPX	198	0
JDMDJBCM	198	1
JDMDJRCM	198	1
JDMDJRJ2	198	20
JDMDJR0F	198	21
JDMDJRPX	198	0
JDMDJTCM	198	1
JDMDJTJ2	198	20
JDMDJT0F	198	22
JDMDJTPX	198	0
JDMDJT2N	198	21
JDMDLGCM	198	1
JDMDLGJ2	198	20
JDMDLGJ3	198	30
JDMDLGPX	198	0
JDMDLNCM	198	1
JDMDLNJ2	198	20
JDMDLNJ3	198	30
JDMDLNPX	198	0
JDMDNJCM	198	1

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDMDNJPX	198	0
JDMDNSCM	198	1
JDMDNSJ2	198	20
JDMDNSJ3	198	30
JDMDNSPX	198	0
JDMDOFCM	198	1
JDMDOFJ2	198	20
JDMDOFPX	198	0
JDMDOTCM	198	1
JDMDOTJ2	198	20
JDMDOTJ3	198	30
JDMDPPCM	198	1
JDMDPPFS	198	3
JDMDPPFX	198	0
JDMDPPJ2	198	20
JDMDPPJ3	198	30
JDMDPPRM	198	4
JDMDPPWS	198	2
JDMDRDCM	198	1
JDMDRDIN	198	2
JDMDRDJ2	198	20
JDMDRDJ3	198	30
JDMDRDPX	198	0
JDMDRWBS	198	2
JDMDRWCM	198	1
JDMDRWJ2	198	20
JDMDRWPX	198	0
JDMDRWSN	198	3
JDMSKCM	198	1
JDMSKJ2	198	20
JDMSRCM	198	1
JDMSRJ2	198	20
JDMSROF	198	21
JDMSRPX	198	0
JDMDSTCM	198	1
JDMDSTJN	198	21
JDMDSTJ2	198	20
JDMDSTOF	198	22
JDMDSTPX	198	0

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDNCASID	3A	
JDNCCSTA	54	
JDNCDEVC	9	
JDNCDEVT	8	
JDNCFLG1	38	
JDNCLNG	0	
JDNCMBRN	26	
JDNCMOD	5	
JDNCNAME	A	
JDNCNSRV	0	
JDNCNSVJ	48	
JDNCRETR	52	
JDNCRINT	50	
JDNCSECL	2E	
JDNCSIZE	54	5C
JDNCSKNM	14	
JDNCSTAK	3C	
JDNCSTAT	1C	
JDNCSTA1	1C	
JDNCSTA2	1D	
JDNCSYSN	1E	
JDNCTYPE	4	
JDNC1AUT	38	80
JDNC1SEC	38	8
JDNC1TCM	38	20
JDNC1TEX	38	10
JDNC1TRB	38	40
JDNC1USC	38	4
JDNHCONT	28	2C
JDNHCON8	28	
JDNHEYE	0	D1C4D5C8
JDNHFHCN	A	80
JDNHFICN	A	40
JDNHFLAG	A	
JDNHJPLX	10	14
JDNHJPL8	10	
JDNHNEXT	18	1C
JDNHNEX8	18	
JDNHNSRV	0	



Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDNHOHDR	8	
JDNHPARN	20	24
JDNHPAR8	20	
JDNHSIZE	28	30
JDNIFACT	8	80
JDNIFLAG	8	
JDNIFPND	8	40
JDNINAME	0	
JDNINODE	0	
JDNISIZE	8	9
JDNRFHCN	10	80
JDNRFICN	10	40
JDNRFLAG	10	
JDNRLNG	0	
JDNRMOD	5	
JDNRNENT	A	
JDNRNODE	0	
JDNROENT	8	
JDNRSENT	C	
JDNRSIZE	11	14
JDNRTYPE	4	
JDNR1ENT	E	
JDN2DVID	8	
JDN2LNG	0	
JDN2MOD	5	
JDN2NSRV	0	
JDN2SIZE	B	C
JDN2TYPE	4	
JDN3DSPJ	8	
JDN3LNG	0	
JDN3MOD	5	
JDN3NSRV	0	
JDN3SIZE	8	10
JDN3TYPE	4	
JDOCCSTA	38	
JDOCDEVC	9	
JDOCDEVT	8	
JDOCLNG	0	
JDOCMBRN	26	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDOCMOD	5	
JDOCNAME	A	
JDOCOFD	0	
JDOCSECL	2E	
JDOCsize	38	40
JDOCSTAT	1C	
JDOCSTA1	1C	
JDOCSTA2	1D	
JDOCSYSN	1E	
JDOCTYPE	4	
JDOCUNIT	14	
JDOHDEV#	C	
JDOHDEVc	20	24
JDOHDEV8	20	
JDOHEYE	0	D1C4D6C8
JDOHJPLX	10	14
JDOHJPL8	10	
JDOHNEXT	18	1C
JDOHNEX8	18	
JDOHOFD	0	
JDOH0HDR	8	
JDOHsize	20	28
JD02DSN	E	
JD02DVID	3D	
JD02FLG1	3A	
JD02FLG2	3B	
JD02LNG	0	
JD02MOD	5	
JD02NRUN	8	
JD02NRVL	A	
JD020FLD	0	
JD02RETD	C	
JD02size	3D	40
JD02TAL	3C	40
JD02TAUL	3C	48
JD02TBLP	3C	10
JD02TLAB	3C	
JD02TNL	3C	1
JD02TNSL	3C	4

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JD02TSL	3C	2
JD02TSUL	3C	A
JD02TYPE	4	
JD021RCV	3A	40
JD021XMT	3A	80
JD022ARC	3B	80
JD022CRT	3B	40
JD022SAF	3B	20
JD022TRC	3B	10
JD022VAL	3B	8
JDPCCHR#	58	
JDPCCHRL	5A	
JDPCCHRO	56	
JDPCKML	3A	
JDPCKPG	3C	
JDPCCSTA	4E	
JDPCDEVC	9	
JDPCDEVT	8	
JDPCDFCB	3E	
JDPCFLID	44	
JDPCLNG	0	
JDPCMBRN	26	
JDPCMOD	5	
JDPCMODF	48	
JDPCMOD1	38	
JDPCMOD2	39	
JDPCMOD3	4C	
JDPCNAME	A	
JDPCNEWP	42	
JDPCNPAL	42	2
JDPCNPDF	42	0
JDPCNP1	42	1
JDPCPRPU	0	
JDPCSECL	2E	
JDPCSIZE	5A	5C
JDPCSTAT	1C	
JDPCSTA1	1C	
JDPCSTA2	1D	
JDPCSYSN	1E	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDPCTDEF	43	3
JDPCTNO	43	2
JDPCTRNS	43	
JDPCTYES	43	1
JDPCTYPE	4	
JDPCUNIT	14	
JDPC1DSS	38	8
JDPC1EDG	38	40
JDPC1FSS	38	80
JDPC1GPS	38	4
JDPC1HTR	38	20
JDPC1PAU	38	10
JDPC1TRC	38	2
JDPC1TRK	38	1
JDPC2FLU	39	10
JDPC2NIP	39	20
JDPC2SCH	39	40
JDPC2SP1	39	1
JDPC2SP2	39	2
JDPC2SP3	39	3
JDPC2VUC	39	80
JDPC3CKP	4C	80
JDPC3CKR	4C	40
JDPC3CKS	4C	20
JDPC3SUP	4C	10
JDPFCCON	23	1
JDPFCDFT	23	0
JDPFCDS	23	2
JDPFCJOB	23	3
JDPFCNON	23	4
JDPFCPMK	23	
JDPFCSEC	24	
JDPFDEVN	18	
JDPFFLAG	22	
JDPFFPRS	22	40
JDPFFTRC	22	80
JDPFLNG	0	
JDPFMOD	5	
JDPFNPRO	20	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDPFPROC	10	
JDPFPRT	0	
JDPFSIZE	2E	30
JDPFSSNM	8	
JDPFSSYS	26	
JDPFTYPE	4	
JDPHEYE	0	D1C4D7C8
JDPHJPLX	10	14
JDPHJPL8	10	
JDPHNEXT	18	1C
JDPHNEX8	18	
JDPHOHDR	8	
JDPHPARN	20	24
JDPHPAR8	20	
JDPHPRPU	0	
JDPHSIZE	20	28
JDPRCMPT	8	
JDPRDEVT	16	
JDPRFASI	1E	80
JDPRFCMP	1E	20
JDPRFCMT	1E	40
JDPRFCTL	1E	4
JDPRFFCB	1E	10
JDPRFLAG	1E	
JDPRFSSP	1E	8
JDPRLNG	0	
JDPRMOD	5	
JDPRPRT	0	
JDPRRECS	10	
JDPRSIZE	1F	20
JDPRTYPE	4	
JDPRWDTH	14	
JDPWCLS#	34	
JDPWCLSL	36	
JDPWCLSO	32	
JDPWDST#	46	
JDPWDSTL	48	
JDPWDSTO	44	
JDPWEWSL	50	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDPWEWSO	4E	
JDPWFCBN	10	
JDPWFLG1	1E	
JDPWFLSH	14	
JDPWFRM#	3A	
JDPWFRML	3C	
JDPWFRMO	38	
JDPWLNG	0	
JDPWMOD	5	
JDPWOWNN	8	
JDPWPGLH	2C	
JDPWPGLL	28	
JDPWPRC#	40	
JDPWPRCL	42	
JDPWPRCO	3E	
JDPWPWSL	4C	
JDPWPWSO	4A	
JDPWRCLH	24	
JDPWRCLL	20	
JDPWRKSL	0	
JDPWSIZE	52	54
JDPWTYPE	4	
JDPWUCS#	1A	
JDPWUCSL	1C	
JDPWUCSO	18	
JDPW1BRS	1E	80
JDP2DVID	9	
JDP2FLAG	8	
JDP2FSEP	8	80
JDP2LNG	0	
JDP2MOD	5	
JDP2PRPU	0	
JDP2SFJR	C	40
JDP2SFST	C	20
JDP2SFTS	C	10
JDP2SIZE	32	34
JDP2TYPE	4	
JDP2WFLG	C	
JDP2WJBN	10	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDP2WJIH	1C	
JDP2WJIL	18	
JDP2WRC#	30	
JDP2WRCL	32	
JDP2WRCO	2E	
JDP2WRTN	20	
JDP2WVL#	2A	
JDP2WVLL	2C	
JDP2WVLO	28	
JDP3CB	26	
JDP3CBD	26	1
JDP3CBJ	26	2
JDP3CBN	26	3
JDP3CGS	25	
JDP3CGS1	25	1
JDP3CGS2	25	2
JDP3CKRC	22	
JDP3DEVT	10	
JDP3DSPJ	18	
JDP3FLG1	21	
JDP3GRPN	8	
JDP3HBUR	20	2
JDP3HCHR	20	40
JDP3HFCB	20	80
JDP3HFLG	20	
JDP3HFLS	20	8
JDP3HFRM	20	4
JDP3HMOD	20	10
JDP3HUCS	20	20
JDP3LNG	0	
JDP3MOD	5	
JDP3PRPU	0	
JDP3SIZE	27	28
JDP3TRC	24	
JDP3TYPE	4	
JDP31BPG	21	20
JDP31DGY	21	10
JDP31DYN	21	80
JDP31OLG	21	40

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDP31PDC	21	8
JDP31PDF	21	4
JDRCCSTA	54	
JDRCDEVC	9	
JDRCDEVT	8	
JDRCDFJC	44	
JDRCDFMC	4C	
JDRCLNG	0	
JDRCMBRN	26	
JDRCMOD	5	
JDRCNAME	A	
JDRCPRC#	40	
JDRCRDR	0	
JDRCSECL	2E	
JDRCSIZE	54	5C
JDRCSTAT	1C	
JDRCSTA1	1C	
JDRCSTA2	1D	
JDRCSYSN	1E	
JDRCTJB#	38	
JDRCTRC#	3C	
JDRCTYPE	4	
JDRCUNIT	14	
JDRHEYE	0	D1C4D9C8
JDRHJPLX	10	14
JDRHJPL8	10	
JDRHNEXT	18	1C
JDRHNEX8	18	
JDRHOHDR	8	
JDRHPARN	20	24
JDRHPAR8	20	
JDRHRDR	0	
JDRHSIZE	20	28
JDRIASID	20	
JDRIJOBI	10	
JDRIJOBN	8	
JDRILNG	0	
JDRIMOD	5	
JDRIOWNN	18	



Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDRIRDR	0	
JDRISIZE	22	24
JDRITYPE	4	
JDR2DVID	37	
JDR2FANY	36	4
JDR2FDVA	36	40
JDR2FHLD	36	80
JDR2FIND	36	2
JDR2FJBA	36	20
JDR2FLAG	36	
JDR2FSYA	36	10
JDR2FTRC	36	8
JDR2LNG	0	
JDR2MBR#	3E	
JDR2MBRL	40	
JDR2MBRO	3C	
JDR2MOD	5	
JDR2NODE	2C	
JDR2PRDS	8	
JDR2PTIN	35	
JDR2PTLM	34	
JDR2PUDS	1A	
JDR2RDR	0	
JDR2SIZE	42	44
JDR2TYPE	4	
JDR3ALVL	23	
JDR3DEVT	10	
JDR3DPTY	21	
JDR3DSPJ	18	
JDR3FABV	20	20
JDR3FACT	20	80
JDR3FBLP	20	10
JDR3FLAG	20	
JDR3FPGM	20	40
JDR3GRPN	8	
JDR3JLVL	22	
JDR3LNG	0	
JDR3MOD	5	
JDR3RDR	0	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDR3REGL	28	
JDR3SIZE	28	2C
JDR3TIML	24	
JDR3TYPE	4	
JDSCCSTA	38	
JDSCDEVC	9	
JDSCDEVT	8	
JDSC LNG	0	
JDSCMBRN	26	
JDSCMOD	5	
JDSCNAME	A	
JDSCSECL	2E	
JDSCSIZE	38	40
JDSCSRCV	0	
JDSCSTAT	1C	
JDSCSTA1	1C	
JDSCSTA2	1D	
JDSCSYSN	1E	
JDSC TYPE	4	
JDSGAVL	18	
JDSGDATA	20	
JDSGEYE	0	D1C4E2C7
JDSGNEXT	10	
JDSGSIZE	20	20
JDSGSTHL	8	
JDSGSTPL	A	E6
JDSGSTRG	0	
JDSGSTSP	A	
JDSGSTTL	C	
JDSHEYE	0	D1C4E2C8
JDSHJPLX	10	14
JDSHJPL8	10	
JDSHNEXT	18	1C
JDSHNEX8	18	
JDSHOHDR	8	
JDSHPARN	20	24
JDSHPAR8	20	
JDSHSIZE	20	28
JDSHSRCV	0	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDSIEYE	0	D1C4E2C9
JDSIHDR	0	
JDSINEXT	10	14
JDSINEX8	10	
JDSIOHDR	8	18
JDSISIZE	10	18
JDSKFLAG	40	
JDSKFSRV	40	40
JDSKFTLS	40	80
JDSKIADR	14	
JDSKIHNL	12	
JDSKIHNO	10	
JDSKLNQ	0	
JDSKMOD	5	
JDSKNAME	8	
JDSKNSRV	36	
JDSKSIZE	41	44
JDSKSOCK	0	
JDSKTPNM	24	
JDSKTPNR	34	
JDSKTYPE	4	
JDSOFLG1	8	
JDSOFLG2	4E	
JDSOFLG3	80	
JDSOFLG4	81	
JDSOLNG	0	
JDSOMCLS	24	
JDSOMDST	2C	
JDSOMFCB	C	
JDSOMFLH	10	
JDSOMFRM	14	
JDSOMOD	5	
JDSOMPRM	1C	
JDSOMUCS	3E	
JDSOMWTR	46	
JDSOSIZE	AA	AC
JDSOSRCV	0	
JDSOTYPE	4	
JDSOWCL#	86	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDSOWCLL	88	
JDSOWCLO	84	
JDSOWCRT	58	
JDSOWDS#	98	
JDSOWDSL	9A	
JDSOWDSO	96	
JDSOWFCB	50	
JDSOWFLH	54	
JDSOWFM#	8C	
JDSOWFML	8E	
JDSOWFMO	8A	
JDSOWJBN	60	
JDSOWJIH	6C	
JDSOWJIL	68	
JDSOWPM#	92	
JDSOWPML	94	
JDSOWPMO	90	
JDSOWRC#	9E	
JDSOWRCL	A0	
JDSOWRCO	9C	
JDSOWSCL	A6	
JDSOWSCO	A4	
JDSOWSEL	AA	
JDSOWSEO	A8	
JDSOWUCS	70	
JDSOWWTR	78	
JDS01NFY	8	80
JDS01STR	8	40
JDS02BRN	4E	40
JDS02BRS	4E	80
JDS02HLD	4E	20
JDS020DH	4E	8
JDS020DK	4E	4
JDS020DL	4E	2
JDS020DW	4E	1
JDS02RLS	4E	10
JDS03BNS	80	2
JDS03BRS	80	80
JDS03HLD	80	40

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDS03HNS	80	1
JDS030DH	80	20
JDS030DK	80	10
JDS030DL	80	8
JDS030DW	80	4
JDS04JOB	81	80
JDS04STC	81	40
JDS04TSU	81	20
JDST1ACO	198	4
JDST1ACT	198	80
JDST1DRG	198	10
JDST1DRN	198	8
JDST1INA	198	40
JDST2END	198	1
JDST2HTD	198	20
JDST2HTG	198	8
JDST2INT	198	4
JDST2NRS	198	2
JDST2PAU	198	10
JDST2STE	198	80
JDST2STG	198	40
JDS2DVID	8	
JDS2LNG	0	
JDS2MOD	5	
JDS2SIZE	B	C
JDS2SRCV	0	
JDS2TYPE	4	
JDTYACLU	198	11
JDTYACSK	198	12
JDTYAPPL	198	E
JDTYCONS	198	1
JDTYJBRC	198	8
JDTYJBXM	198	A
JDTYJOBI	198	13
JDTYJRSV	198	FF
JDTYLINE	198	4
JDTYLOGN	198	2
JDTYNJEC	198	C
JDTYNSRV	198	3

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDTY0FLD	198	7
JDTYOUTI	198	14
JDTYPRPU	198	5
JDTYRDR	198	6
JDTYRMTW	198	D
JDTYRNOD	198	10
JDTYSOCK	198	F
JDTYSYRC	198	9
JDTYSYXM	198	B
JDUTDEST	44	
JDUTFCB	3C	
JDUTFLG1	57	
JDUTFLSH	38	
JDUTFORM	10	
JDUTINFO	0	
JDUTLNG	0	
JDUTMOD	5	
JDUTOUTC	8	
JDUTPPG#	5C	
JDUTPRC#	64	
JDUTPRIO	56	
JDUTPRMD	18	
JDUTSIZE	68	70
JDUTTJBN	28	
JDUTTOWN	68	
JDUTTPG#	58	
JDUTTRC#	60	
JDUTTWKI	30	
JDUTTYPE	4	
JDUTUCS	40	
JDUTWRTN	20	
JDUT1BRS	57	80
JDU2DEST	1C	
JDU2IMQT	14	
JDU2INFO	0	
JDU2JOEN	8	
JDU2JOE1	10	
JDU2JOE2	12	
JDU2JOID	8	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDU2LNG	0	
JDU2MOD	5	
JDU2NDE	1C	
JDU2RTE	1E	
JDU2SIZE	20	28
JDU2TYPE	4	
JDU2USER	20	
JDU3COPY	8	
JDU3INFO	0	
JDU3LNG	0	
JDU3MOD	5	
JDU3SIZE	9	10
JDU3TYPE	4	
JDWBFLG1	8	
JDWBFLG2	9	
JDWBLNG	0	
JDWBMOD	5	
JDWBSC	0	
JDWBSIZE	A	C
JDWBTYPE	4	
JDWB1BEX	8	80
JDWB1BLK	8	20
JDWB1BXA	8	40
JDWB1HTB	8	10
JDWB1MFJ	8	8
JDWB1MFT	8	4
JDWB1MLV	8	1
JDWB1MRF	8	2
JDWB2SHR	9	20
JDWB2TPY	9	40
JDWB2VAR	9	80
JDWCBUFS	38	
JDWCCRTC	3E	
JDWCCSTA	44	
JDWCDEVT	22	
JDWCDSCI	3A	
JDWCFCMP	2D	80
JDWCFCNS	2D	40
JDWCFLAG	2D	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDWCFMSG	2D	20
JDWCFPWD	2D	10
JDWCLINE	2E	
JDWCLNG	0	
JDWCMBRN	1A	
JDWCMOD	5	
JDWCNAME	8	
JDWCPBSC	2C	1
JDWCPROT	2C	
JDWCPRT#	41	
JDWCPUNA	2C	2
JDWCPUN#	42	
JDWCRDR#	43	
JDWCRMTW	0	
JDWCRTC	3C	
JDWCSIZE	44	4C
JDWCSTAT	2A	
JDWCSTA1	2A	
JDWCSTA2	2B	
JDWCSYSN	12	
JDWCTYPE	4	
JDWCWTIM	40	
JDWHDEV#	C	
JDWHDEVC	20	24
JDWHDEV8	20	
JDWHEYE	0	D1C4E6C8
JDWHJPLX	10	14
JDWHJPL8	10	
JDWHNEXT	18	1C
JDWHNEX8	18	
JDWHOHDR	8	
JDWHRMTW	0	
JDWHSIZE	20	28
JDWNFCMP	1A	40
JDWNFLAG	1A	
JDWNFLGN	1A	80
JDWNFMSG	1A	20
JDWNLNG	0	
JDWNLOGN	10	



Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDWNLUNM	8	
JDWNMOD	5	
JDWNSIZE	1B	1C
JDWNSNA	0	
JDWNTYPE	4	
JDWSBRST	198	21
JDWSCHRS	198	31
JDWSCLAS	198	1
JDWSCPID	198	32
JDWSCRTN	198	2
JDWSDEVT	198	33
JDWSFCBN	198	3
JDWSFLID	198	4
JDWSFORM	198	5
JDWSHLDI	198	22
JDWSJBID	198	6
JDWSJBLM	198	23
JDWSJBNM	198	7
JDWSMBAF	198	24
JDWSOPTY	198	8
JDWSOUTD	198	25
JDWSPRMD	198	9
JDWSRCJ2	198	26
JDWSRCJ3	198	34
JDWSSCHE	198	27
JDWSSLSH	198	28
JDWSSOSP	198	29
JDWSSOSR	198	2A
JDWSSRVC	198	2B
JDWSSTAK	198	35
JDWSSVAF	198	2C
JDWSUCSN	198	A
JDWSUSRD	198	2D
JDWSWRTN	198	2E
JDW2FLAG	8	
JDW2F150	8	80
JDW2F190	8	40
JDW2LNG	0	
JDW2MOD	5	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDW2RMTW	0	
JDW2SIZE	9	C
JDW2TYPE	4	
JDXCCSTA	38	
JDXCDEVC	9	
JDXCDEVT	8	
JDXCJXMT	0	
JDXCLNG	0	
JDXCMBRN	26	
JDXCMOD	5	
JDXCNAME	A	
JDXCSECL	2E	
JDXCSIZE	38	40
JDXCSTAT	1C	
JDXCSTA1	1C	
JDXCSTA2	1D	
JDXCSYSN	1E	
JDXCTYPE	4	
JDXHEYE	0	D1C4E7C8
JDXHJPLX	10	14
JDXHJPL8	10	
JDXHJXMT	0	
JDXHNEXT	18	1C
JDXHNEX8	18	
JDXHOHDR	8	
JDXHPARN	20	24
JDXHPAR8	20	
JDXHSIZE	20	28
JDXNJXMT	0	
JDXNLNG	0	
JDXNMOD	5	
JDXNSIZE	16	18
JDXNTYPE	4	
JDXNWJSH	C	
JDXNWJSL	8	
JDXNWSCS	12	
JDXNWSCO	10	
JDXNWSEL	16	
JDXNWSEO	14	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDXODDEL	9	1
JDXODHLD	9	2
JDXODISP	9	
JDXODKP	9	3
JDXOFANY	44	20
JDXOFLG1	8	
JDXOJXMT	0	
JDXOLNG	0	
JDXOMOD	5	
JDXOSIZE	6E	70
JDXOTYPE	4	
JDXOWCL#	4A	
JDXOWCLL	4C	
JDXOWCLO	48	
JDXOWDS#	50	
JDXOWDSL	52	
JDXOWDSO	4E	
JDXOWFLG	44	
JDXOWHLD	44	80
JDXOWJBN	14	
JDXOWJIH	38	
JDXOWJIL	34	
JDXOWJOB	44	10
JDXOWJSH	40	
JDXOWJSL	3C	
JDXOWMB#	5C	
JDXOWMBL	5E	
JDXOWMBO	5A	
JDXOWOWN	C	
JDXOWRC#	56	
JDXOWRCL	58	
JDXOWRCO	54	
JDXOWRLS	44	40
JDXOWSCH	24	
JDXOWSCL	6A	
JDXOWSCO	68	
JDXOWSEL	6E	
JDXOWSEO	6C	
JDXOWSTC	44	8

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDXOWSVN	1C	
JDXOWTSU	44	4
JDXOWVL#	62	
JDXOWVLL	64	
JDXOWVLO	60	
JDX01NFY	8	80
JDX01STR	8	40
JDX2DVID	8	
JDX2JXMT	0	
JDX2LNG	0	
JDX2MOD	5	
JDX2SIZE	B	C
JDX2TYPE	4	
JDYCCSTA	38	
JDYCDEVC	9	
JDYCDEVT	8	
JDYCLNG	0	
JDYCMBRN	26	
JDYCMOD	5	
JDYCNAME	A	
JDYCSECL	2E	
JDYCSIZE	38	40
JDYCSTAT	1C	
JDYCSTA1	1C	
JDYCSTA2	1D	
JDYCSXMT	0	
JDYCSYSN	1E	
JDYCTYPE	4	
JDYHEYE	0	D1C4E8C8
JDYHJPLX	10	14
JDYHJPL8	10	
JDYHNEXT	18	1C
JDYHNEX8	18	
JDYHOHDR	8	
JDYHPARN	20	24
JDYHPAR8	20	
JDYHSIZE	20	28
JDYHSXMT	0	
JDYNFLAG	18	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDYNFODH	18	80
JDYNFODK	18	40
JDYNFODL	18	20
JDYNFODW	18	10
JDYNLNG	0	
JDYNMOD	5	
JDYNSIZE	22	24
JDYNSXMT	0	
JDYNTYPE	4	
JDYNWDSH	C	
JDYNWDSL	8	
JDYNWPLH	14	
JDYNWPLL	10	
JDYNWSCL	1E	
JDYNWSCO	1C	
JDYNWSEL	22	
JDYNWSEO	20	
JDYODDEL	9	1
JDYODHLD	9	2
JDYODISP	9	
JDYODKP	9	3
JDYOFGL1	8	
JDYOLNG	0	
JDYOMOD	5	
JDYOSIZE	7D	80
JDYOSXMT	0	
JDYOTYPE	4	
JDYOWBNS	4D	2
JDYOWBRS	4D	80
JDYOWCL#	50	
JDYOWCLL	52	
JDYOWCLO	4E	
JDYOWDHL	28	
JDYOWDLL	24	
JDYOWDS#	62	
JDYOWDSL	64	
JDYOWDSO	60	
JDYOWFCB	C	
JDYOWFLG	4D	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDYOWFLH	10	
JDYOWFL2	7C	
JDYOWFM#	56	
JDYOWFML	58	
JDYOWFMO	54	
JDYOWHLD	4D	40
JDYOWHNS	4D	1
JDYOWJBN	1C	
JDYOWJIH	38	
JDYOWJIL	34	
JDYOWODH	4D	20
JDYOWODK	4D	10
JDYOWODL	4D	8
JDYOWODW	4D	4
JDYOWOWN	14	
JDYOWPLH	30	
JDYOWPLL	2C	
JDYOWPM#	5C	
JDYOWPML	5E	
JDYOWPMO	5A	
JDYOWPTY	4C	
JDYOWRC#	68	
JDYOWRCL	6A	
JDYOWRCO	66	
JDYOWSCL	76	
JDYOWSCO	74	
JDYOWSEL	7A	
JDYOWSEO	78	
JDYOWUCS	3C	
JDYOWVL#	6E	
JDYOWVLL	70	
JDYOWVLO	6C	
JDYOWWTR	44	
JDY01NFY	8	80
JDY01STR	8	40
JDY02JOB	7C	80
JDY02STC	7C	40
JDY02TSU	7C	20
JDY2DVID	8	

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
JDY2LNG	0	
JDY2MOD	5	
JDY2SIZE	B	C
JDY2SXMT	0	
JDY2TYPE	4	
SSJD	0	
SSJDACRT	CA	40404040
SSJDADJN	70	40404040
SSJDAJOB	C2	40404040
SSJDAPNM	78	40404040
SSJDDGN#	48	0
SSJDDGNA	44	
SSJDDGNM	3C	40404040
SSJDDST#	D8	0
SSJDDSTA	D4	
SSJDDVN#	38	0
SSJDDVNA	34	
SSJDDVNM	2A	40404040
SSJDERRJ	0	C
SSJDERRU	0	8
SSJDERRW	0	4
SSJDEYE	0	E2E2D1C4
SSJDEYEE	0	1C
SSJDFDRM	11	40
SSJDFLIN	11	80
SSJDFLTZ	24	0
SSJDFLT1	18	0
SSJDFLT2	19	0
SSJDFLT3	1B	0
SSJDFLT4	1C	0
SSJDFLT5	1E	0
SSJDFLT6	20	0
SSJDFLT7	21	0
SSJDFLT8	22	0
SSJDFLT9	23	0
SSJDFOPT	11	0
SSJDFREQ	E	
SSJDFTRE	0	4
SSJDGLBL	0	88

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
SSJDIFCP	120	124
SSJDIFC8	120	
SSJDINTE	0	18
SSJDINVL	0	90
SSJDJDV#	148	0
SSJDLCL#	138	0
SSJDLCLP	100	104
SSJDLCL8	100	
SSJDLEN8	198	1E0
SSJDLIMT	14	0
SSJDLIN#	158	0
SSJDLINP	128	12C
SSJDLIN8	128	
SSJDLMTR	0	14
SSJDLNG	8	
SSJDLNNM	5C	40404040
SSJDMBRN	54	40404040
SSJDMOD	A	B
SSJDMOD0	A	0
SSJDNDV#	15C	0
SSJDNJE#	144	0
SSJDNJEP	110	114
SSJDNJE8	110	
SSJDOBTD	E	4
SSJDODV#	150	0
SSJDOFL#	14C	0
SSJDOFLP	118	11C
SSJDOFL8	118	
SSJDOK	0	0
SSJDPARM	0	10
SSJDPDMC	F	1
SSJDPD64	F	2
SSJDPLMT	F	10
SSJDPOPT	F	0
SSJDPOP2	10	0
SSJDPOST	0	8C
SSJDPRLS	F	8
SSJDPRND	F	20
SSJDPRST	F	4



Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
SSJDPSCK	F	40
SSJDPSES	F	80
SSJDP2AD	10	80
SSJDP2NF	10	40
SSJDP2SD	10	20
SSJDRDV#	140	0
SSJDRETN	FC	0
SSJDRMT#	13C	0
SSJDRMTP	108	10C
SSJDRMT8	108	
SSJDRSTG	E	8
SSJDRWIL	0	98
SSJDRWNM	66	40404040
SSJDSIN#	160	0
SSJDSINP	130	134
SSJDSIN8	130	
SSJDSIZE	198	1C0
SSJDSKNM	80	40404040
SSJDSMAP	0	80
SSJDSMD0	C	0
SSJDSMLE	0	24
SSJDSMOD	C	D
SSJDSPTE	0	8
SSJDSRV#	154	0
SSJDSTG0	0	84
SSJDSTOR	0	14
SSJDSTRE	0	C
SSJDSTRP	170	
SSJDSUBF	0	10
SSJDSVER	C	C
SSJDSVMC	C	100
SSJDSVM1	C	100
SSJDSVRM	C	
SSJDSVR1	C	1
SSJDSYSN	4C	40404040
SSJDSZE1	198	1C0
SSJDTOKN	178	0
SSJDUNSD	0	20
SSJDVER	A	A

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
SSJDVER1	A	1
SSJDVRM	A	
SSJDVRMC	A	100
SSJDVRM1	A	100
SSJDWSCL	88	40404040
SSJDWSDS	A0	40404040
SSJDWSFM	90	40404040
SSJDWSJN	98	40404040
SSJDWSPR	BA	40404040
SSJDWSWR	B2	40404040
SSJDZCRT	24	40
SSJDZJOB	24	80
SSJDZOMO	13	5C
SSJD1ACT	18	80
SSJD1CHR	12	6F
SSJD1DRG	18	10
SSJD1DRN	18	8
SSJD1HOT	18	20
SSJD1INA	18	40
SSJD1NRM	18	E0
SSJD2END	19	1
SSJD2HTD	19	20
SSJD2HTG	19	8
SSJD2INT	19	4
SSJD2NRS	19	2
SSJD2PAU	19	10
SSJD2PRB	19	3C
SSJD2STE	19	80
SSJD2STG	19	40
SSJD3CON	1B	10
SSJD3JRC	1B	4
SSJD3JXM	1B	8
SSJD3PRT	1B	80
SSJD3PUN	1B	40
SSJD3RCV	1B	5
SSJD3RDR	1B	20
SSJD3SRC	1B	1
SSJD3SXM	1B	2
SSJD3XMT	1B	A

Table 295. Cross Reference for IAZSSJD (continued)

Name	Offset	Hex Tag
SSJD4LGN	1C	40
SSJD4LIN	1C	80
SSJD4NJE	1C	8
SSJD4NSV	1C	20
SSJD40FL	1C	10
SSJD5IFC	1E	8
SSJD5INT	1E	4
SSJD5LCL	1E	80
SSJD5NJE	1E	10
SSJD50FL	1E	20
SSJD5RMT	1E	40
SSJD6DGN	20	40
SSJD6LIN	20	8
SSJD6MBR	20	10
SSJD6NAM	20	80
SSJD6SYS	20	20
SSJD7NJA	21	20
SSJD7NJB	21	8
SSJD7NJK	21	10
SSJD7NJJN	21	40
SSJD7NJS	21	4
SSJD7NJT	21	2
SSJD7RWN	21	80
SSJD8FSS	22	40
SSJD8JES	22	80
SSJD9CLS	23	80
SSJD9DST	23	10
SSJD9FRM	23	40
SSJD9JBN	23	20
SSJD9PRM	23	4
SSJD9WRT	23	8
SS0BSSJD	0	53

## IAZSSJP information

### IAZSSJP programming interface information

IAZSSJP is a programming interface.

## IAZSSJP heading information

<b>Common name:</b>	SSOB Extension for the JES Property Information Service (SSI 82)
<b>Macro ID:</b>	IAZSSJP
<b>DSECT name:</b>	SSJP
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	SSJP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: caller Key: Any Residency: Any
<b>Size:</b>	See SSJPSIZE equate
<b>Created by:</b>	Caller of SSI function 'SSOBSSJP' = 82
<b>Pointed to by:</b>	SSOBINDV in the IEFSSOBH mapping macro
<b>Serialization:</b>	None required
<b>Function:</b>	Defines the SSOB extension used by application programs to request JES Property Service from JES.

## IAZSSJP mapping

Table 296. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
<pre> %SSJPCMTS: ; 01 CHANGE ACTIVITY: \$Z22LPRO=PROCSSI HBB77A0 131127 TJW: PROCLIB SSI \$Z24LCKS=CKPTHC HBB77B0 171113 TJW: CKPT information SSI \$S202710=HEADERS HBB77C0 190212 TJW: Updates for C headers       S202710 \$Z31LJRL=JES2RESL HBB77E0 221025 NAB: Resgroup SSI updates \$Z32LJRL=JES2RGRP HBB77F0 230417 NAB: SSI85 resgroup filters \$Z32LPCY=JES2PCY HBB77F0 250221 MWG: Save DS Name for policy, 01 A000000-999999 Created for z/OS 1.11 01 NOTES:     In the following description of fields, the     notation before the field description can be one     of the following:         I. Input (appl always supplies information)         O. Output (appl receives information)     Function value for SSOBFUNC </pre>					
0	(0)	X'52'	0	SSOBSSJP	"82" JES Property information service id
0	(0)	DBL WORD	8	SSJP(0)	SSOB extension mapping - SSJP
Return code values for SSOBRETN					
0	(0)	X'0'	0	SSJP0K	"0" Request successful
0	(0)	X'4'	0	SSJPERRW	"4" Request completed with possible errors, see SSJPRETN for reason code
0	(0)	X'8'	0	SSJPERRU	"8" Request cannot be completed due to user error, see SSJPRETN for reason code
0	(0)	X'C'	0	SSJPERRJ	"12" Request cannot be completed due to an internal (JES) error, SSJPRETN contains internal JES reason code

Table 296. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'10'	0	SSJPPARM	"16" The parameter list, ie the SSJP extension, is an invalid format - it is not an SSJP, the service version number is not supported, or the SSJP is not large enough
0	(0)	X'14'	0	SSJPSTOR	"20" Request cannot be processed because required storage cannot be obtained. No data can be returned to the caller
0	(0)	X'0'	0	SSJPBGN	"*"
0	(0)	CHARACTER	4	SSJPID	Extension identifier
4	(4)	ADDRESS	2	SSJPLEN	Length of SSOB extension area
6	(6)	SIGNED	2	SSJPVER	I.Version number of SSOB
6	(6)	BITSTRING	0	SSJPVER1	"X'0100'" z/OS 1.11 version (initial)
6	(6)	BITSTRING	0	SSJPVERC	"X'0100'" Current version number (z/OS 1.11)
8	(8)	BITSTRING	1	SSJPFREQ	I.Function request byte
8	(8)	X'4'	0	SSJPNJOD	"4" NJE node info obtain
8	(8)	X'8'	0	SSJPNJRS	"8" NJE node storage return
8	(8)	X'C'	0	SSJPSPOD	"12" Spool info obtain
8	(8)	X'10'	0	SSJPSPRS	"16" Spool storage return
8	(8)	X'14'	0	SSJPITOD	"20" Initiator info obtain
8	(8)	X'18'	0	SSJPITRS	"24" Initiator storage return
8	(8)	X'1C'	0	SSJJPXOD	"28" JESPLEX info obtain
8	(8)	X'20'	0	SSJJPXRS	"32" JESPLEX storage return
8	(8)	X'24'	0	SSJJPJCOD	"36" Job class info obtain
8	(8)	X'28'	0	SSJJPJCRS	"40" Job class storage return
8	(8)	X'2C'	0	SSJPPROD	"44" PROCLIB concat obtain
8	(8)	X'30'	0	SSJPPRRS	"48" PROCLIB storage return
8	(8)	X'34'	0	SSJPCMOD	"52" CKPT information obtain
8	(8)	X'38'	0	SSJPCKRS	"56" CKPT storage return
8	(8)	X'3C'	0	SSJPRGOD	"60" Resource group obtain
8	(8)	X'40'	0	SSJPRGRS	"64" Resource group release
8	(8)	X'44'	0	SSJPPYOD	"68" PLCY information obtain
8	(8)	X'48'	0	SSJPPYRS	"72" PLCY information release
9	(9)	BITSTRING	3	SSJPRSV1	Reserved

Table 296. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description																																																									
<p>SSJPRETN provides additional information for some values of SSOBRETN. The meaning of the return codes is based on the value in SSOBRETN and the function being requested (SSJPFREQ). Values of SSJPRETN from 0-124 (x'7C') are reserved for the SSI router and problems it detects. Values of SSJPRETN from 128-252 ('FC') are reserved as COMMON reason codes for problems detected by the sub functions. Values of 256 (x'100') and above are SHARED by the sub functions. Additional SSJPRETN values can be found in the following data areas (based on function code):</p> <p>Related</p> <table><tr><th>Function code</th><th>data area</th><th>Description</th></tr><tr><td>SSJPNJOD (4)</td><td>IAZJPNJN</td><td>NJE node info obtain</td></tr><tr><td>SSJPNJRS (8)</td><td>IAZJPNJN</td><td>NJE node storage return</td></tr><tr><td>SSJPSPOD (12)</td><td>IAZJPSPL</td><td>Spool info obtain</td></tr><tr><td>SSJPSPRS (16)</td><td>IAZJPSPL</td><td>Spool storage return</td></tr><tr><td>SSJPITOD (20)</td><td>IAZJPITD</td><td>Initiator info obtain</td></tr><tr><td>SSJPITRS (24)</td><td>IAZJPITD</td><td>Initiator storage return</td></tr><tr><td>SSJPJXOD (28)</td><td>IAZJPLEX</td><td>JESPLEX info obtain</td></tr><tr><td>SSJPJXRS (32)</td><td>IAZJPLEX</td><td>JESPLEX storage return</td></tr><tr><td>SSJPCOD (36)</td><td>IAZJPCLS</td><td>Job class info obtain</td></tr><tr><td>SSJPCRS (40)</td><td>IAZJPCLS</td><td>Job class storage return</td></tr><tr><td>SSJPPROD (44)</td><td>IAZJPROC</td><td>PROCLIB concat obtain</td></tr><tr><td>SSJPPRRS (48)</td><td>IAZJPROC</td><td>PROCLIB storage return</td></tr><tr><td>SSJPCOD (52)</td><td>IAZJPCPK</td><td>CKPT information obtain</td></tr><tr><td>SSJPCRS (56)</td><td>IAZJPCPK</td><td>CKPT storage return</td></tr><tr><td>SSJPRGOD (60)</td><td>IAZJPRGP</td><td>RESGRP info obtain</td></tr><tr><td>SSJPRGRS (64)</td><td>IAZJPRGP</td><td>RESGRP info release</td></tr><tr><td>SSJPPYOD (68)</td><td>IAZJPLCY</td><td>PLCY informaiton obtain</td></tr><tr><td>SSJPPYRS (72)</td><td>IAZJPLCY</td><td>PLCY information release</td></tr></table>						Function code	data area	Description	SSJPNJOD (4)	IAZJPNJN	NJE node info obtain	SSJPNJRS (8)	IAZJPNJN	NJE node storage return	SSJPSPOD (12)	IAZJPSPL	Spool info obtain	SSJPSPRS (16)	IAZJPSPL	Spool storage return	SSJPITOD (20)	IAZJPITD	Initiator info obtain	SSJPITRS (24)	IAZJPITD	Initiator storage return	SSJPJXOD (28)	IAZJPLEX	JESPLEX info obtain	SSJPJXRS (32)	IAZJPLEX	JESPLEX storage return	SSJPCOD (36)	IAZJPCLS	Job class info obtain	SSJPCRS (40)	IAZJPCLS	Job class storage return	SSJPPROD (44)	IAZJPROC	PROCLIB concat obtain	SSJPPRRS (48)	IAZJPROC	PROCLIB storage return	SSJPCOD (52)	IAZJPCPK	CKPT information obtain	SSJPCRS (56)	IAZJPCPK	CKPT storage return	SSJPRGOD (60)	IAZJPRGP	RESGRP info obtain	SSJPRGRS (64)	IAZJPRGP	RESGRP info release	SSJPPYOD (68)	IAZJPLCY	PLCY informaiton obtain	SSJPPYRS (72)	IAZJPLCY	PLCY information release
Function code	data area	Description																																																												
SSJPNJOD (4)	IAZJPNJN	NJE node info obtain																																																												
SSJPNJRS (8)	IAZJPNJN	NJE node storage return																																																												
SSJPSPOD (12)	IAZJPSPL	Spool info obtain																																																												
SSJPSPRS (16)	IAZJPSPL	Spool storage return																																																												
SSJPITOD (20)	IAZJPITD	Initiator info obtain																																																												
SSJPITRS (24)	IAZJPITD	Initiator storage return																																																												
SSJPJXOD (28)	IAZJPLEX	JESPLEX info obtain																																																												
SSJPJXRS (32)	IAZJPLEX	JESPLEX storage return																																																												
SSJPCOD (36)	IAZJPCLS	Job class info obtain																																																												
SSJPCRS (40)	IAZJPCLS	Job class storage return																																																												
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SSJPCOD (52)	IAZJPCPK	CKPT information obtain																																																												
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SSJPRGOD (60)	IAZJPRGP	RESGRP info obtain																																																												
SSJPRGRS (64)	IAZJPRGP	RESGRP info release																																																												
SSJPPYOD (68)	IAZJPLCY	PLCY informaiton obtain																																																												
SSJPPYRS (72)	IAZJPLCY	PLCY information release																																																												
12	(C)	SIGNED	4	SSJPRETN	0.Reason code for error return code																																																									
Values of SSJPRETN when SSOBRETN is SSJPERRU (8) for all functions (values of SSJPFREQ)																																																														
12	(C)	X'4'	0	SSJPUNSF	"4" Function code passed in SSJPFREQ is not supported																																																									
12	(C)	X'8'	0	SSJPNTDS	"8" SSJPUSEr pointer is zero																																																									
12	(C)	X'C'	0	SSJPUNSD	"12" SSJPUSEr CB version number is not correct																																																									
12	(C)	X'10'	0	SSJPSMLE	"16" SSJPUSEr CB length is too small																																																									
12	(C)	X'14'	0	SSJPEYEE	"20" SSJPUSEr CB eyecatcher is not correct																																																									
12	(C)	X'88'	0	SSJPINVA	"136" Invalid filter arguments.																																																									
12	(C)	X'8C'	0	SSJPGLBL	"140" Function not supported on global (JES3)																																																									
12	(C)	X'90'	0	SSJPSMAP	"144" Error with storage addressed by storage management anchor pointer - e.g. not key 1, fetch protected, incorrect eyecatcher																																																									
Values of SSJPRETN when SSOBRETN is SSJPOSTOR (20) for all functions (values of SSJPFREQ)																																																														
12	(C)	X'80'	0	SSJPGETM	"128" \$GETMAIN failed																																																									
12	(C)	X'84'	0	SSJPOSTGO	"132" STORAGE OBTAIN failed																																																									
This SSI function is a router for various JES requests. Each function has a related data area that must be pointed to by SSJPUSEr. The mapping of the data area depends on the function code in SSJPFREQ. The list of valid functions and related data areas is listed above																																																														
16	(10)	ADDRESS	4	SSJPUSEr	I.Pointer to user parameter area																																																									

Table 296. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	SIGNED	4	(2)	Reserved
32	(20)	DBL WORD	8	(0)	Align for length
32	(20)	X'20'	0	SSJPSIZ1	"*-SSJPBGN" Version 1 SSOB extension size
32	(20)	X'20'	0	SSJPSize	"*-SSJPBGN" Current SSOB extension length
32	(20)	X'40'	0	SSJPLEN8	"((SSOBHSIZ+7)/8)*8+SSJPSize" Total length of SSOB with SSOB extension

Table 297. Cross Reference for IAZSSJP

Name	Offset	Hex Tag
SSJP	0	
SSJPBGN	0	0
SSJPCKOD	8	34
SSJPCKRS	8	38
SSJPERRJ	0	C
SSJPERRU	0	8
SSJPERRW	0	4
SSJPEYEE	C	14
SSJPFREQ	8	
SSJPGETM	C	80
SSJPGLBL	C	8C
SSJPID	0	E2E2D1D7
SSJPINVA	C	88
SSJPITOD	8	14
SSJPITRS	8	18
SSJPJC0D	8	24
SSJPJCRS	8	28
SSJPJX0D	8	1C
SSJPJXRS	8	20
SSJPLEN	4	
SSJPLEN8	20	40
SSJPNJ0D	8	4
SSJPNJRS	8	8
SSJPNTDS	C	8
SSJP0K	0	0
SSJPPARM	0	10
SSJPPROD	8	2C
SSJPPRRS	8	30
SSJPPY0D	8	44
SSJPPYRS	8	48

Table 297. Cross Reference for IAZSSJP (continued)

Name	Offset	Hex Tag
SSJPRETN	C	
SSJPRG0D	8	3C
SSJPRGRS	8	40
SSJPRSV1	9	
SSJPSize	20	20
SSJPSIZ1	20	20
SSJPSMAP	C	90
SSJPSMLE	C	10
SSJPSP0D	8	C
SSJPSPRS	8	10
SSJPSTG0	C	84
SSJPST0R	0	14
SSJPUNSD	C	C
SSJPUNSF	C	4
SSJPUSER	10	
SSJPVER	6	
SSJPVERC	6	100
SSJPVER1	6	100
SS0BSSJP	0	52

## IAZYNCC information

### IAZYNCC programming interface information

IAZYNCC is a programming interface.

### IAZYNCC heading information

<b>Common name:</b>	Network Connection Control Record
<b>Macro ID:</b>	IAZYNCC
<b>DSECT name:</b>	NCC
<b>Owning component:</b>	JES COMMON (SC141)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: n/a Key: n/a Residency: NCC records reside in various TP communication buffers (SNA, BSC, TCP/IP, and JESXCF).
<b>Size:</b>	NCCIL for 'I' and 'J' type records NCCCL for 'K' and 'L' type records NCCCL2 for 'K' and 'L' type records (secure signon) NCCAL for 'M' and 'N' type records
<b>Created by:</b>	JES2 and JES3



**Pointed to by:** n/a

**Serialization:** n/a

**Function:** NCC records reside in various TP communication buffers, and are used to communicate connectivity information between nodes and MAS members.

## IAZYNCC mapping

Table 298. Structure NCC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NCC	Network Connection Control
0	(0)	BITSTRING	3	NCCRID(0)	Record Identifier
	1111 ....			NCCRCBF0	"X'F0'" Record control byte value for NCC records
0	(0)	ADDRESS	1	NCCRCB	Record control byte
1	(1)	BITSTRING	1	NCCSRCB	Sub-record control byte
Initial Signon Control Record Response Signon Control Record					
1	(1)	X'C9'	0	NCCISRCB	"C'I'" Initial Signon character
1	(1)	X'D1'	0	NCCRSRCB	"C'J'" Response Signon character
2	(2)	ADDRESS	1	NCCIDL	Length of logical record
3	(3)	CHARACTER	8	NCCINODE	Node identification
11	(B)	BITSTRING	1	NCCIQUAL	Qualifier if shared SP00L
12	(C)	SIGNED	4	NCCIEVNT	Event sequence number
16	(10)	SIGNED	2	NCCIREST	Partial node to node resistance
18	(12)	SIGNED	2	NCCIBFSZ	Maximum transmission block size
20	(14)	CHARACTER	8	NCCILPAS	Line password
28	(1C)	CHARACTER	8	NCCINPAS	Node password
36	(24)	BITSTRING	1	NCCIFLG	Flag byte
	1... ....			NCCIFLGM	"B'10000000'" Multiple trunk (set in response signon only)
	.1.. ....			NCCIFLGS	"B'01000000'" Secure signon protocol used (set in initial signon only)
37	(25)	BITSTRING	4	NCCIFEAT	Feature flags
	1... ....			NCCIPREP	"B'10000000'" BSC/CTCA quiesce options
	.1.. ....			NCCITRM	"B'01000000'" SNA termination options
EQU B'00100000' Reserved for future use					
	...1 ....			NCCIPACK	"B'00010000'" Multiple header records/buffer allowed
37	(25)	X'10'	0	NCCIMHDR	"NCCIPACK" (NCCIPACK is name in FAP)
	.... 1...			NCCIRIF	"B'00001000'" Request to exchange records may be omitted after first object sent in a stream
	.... .1..			NCCIMRCB	"B'00000100'" Mixed RCBs may be sent in a single buffer
	.... ..1.			NCCINOS	"B'00000010'" Non-printable SYSOUT data sets may be sent (EVENTLOG)

Table 298. Structure NCC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ...1		NCCISSIN	"B'00000001'" This system supports spanned SYSIN data. The valid range for NDHCLREC is 0-32767 when this is used.
37	(25)	X'14'	0	NCCIPRAW	"NCCILPAS,L'NCCILPAS,C'X'" Random string
37	(25)	X'1C'	0	NCCIPENC	"NCCINPAS,L'NCCINPAS,C'X'" Encrypted random string
37	(25)	X'29'	0	NCCIL	"*-NCCRCB" Length of Initial/Response signon
41	(29)	BITSTRING	1	NCCIEND	End RCB
Concur Signon Control Record Reset Signon Control Record					
2	(2)	X'D2'	0	NCCESRCB	"C'K'" Reset Signon character
2	(2)	X'D3'	0	NCCSRCB	"C'L'" Concur Signon character "
2	(2)	ADDRESS	1	NCCCDL	Length of logical record
3	(3)	SIGNED	4	NCCCEVNT	Event sequence number
7	(7)	SIGNED	2	NCCCREST(0)	Total node to node resistance
7	(7)	SIGNED	2	NCCEREST	Partial node to node resistance
7	(7)	X'9'	0	NCCCL	"*-NCCRCB" Length of Concur/Reset
9	(9)	BITSTRING	1	NCCCEND	End RCB
9	(9)	BITSTRING	8	NCCCPENC	Encrypted random string
9	(9)	X'11'	0	NCCCL2	"*-NCCRCB" Length of secure Concur/Reset
17	(11)	BITSTRING	1	NCCCEND2	End RCB
Add Connection Control Record Subtract Connection Control Record					
2	(2)	X'D4'	0	NCCASRCB	"C'M'" Add Connection character
2	(2)	X'D5'	0	NCCSSRCB	"C'N'" Subtract Connection character
2	(2)	ADDRESS	1	NCCADL	Length of logical record
3	(3)	CHARACTER	8	NCCANODA	Lower node identification
11	(B)	BITSTRING	1	NCCAQULA	Lower node qualifier
12	(C)	CHARACTER	8	NCCANODB	Higher node identification
20	(14)	BITSTRING	1	NCCAQULB	Higher node qualifier
21	(15)	SIGNED	4	NCCA EVNT	Event sequence number
25	(19)	SIGNED	2	NCCAREST	Node to node resistance (TOTAL)
25	(19)	X'1B'	0	NCCAL	"*-NCCRCB" Length of Add/Subtract record
27	(1B)	BITSTRING	1	NCCAEND	End RCB
42	(2A)	X'29'	0	NCCMXLEN	"(*-NCC)-L'NCCIEND" Maximum length NCC record

Table 299. Cross Reference for IAZYNCC

Name	Offset	Hex Tag
NCC	0	
NCCADL	2	
NCCAEND	1B	0

Table 299. Cross Reference for IAZYNCC (continued)

Name	Offset	Hex Tag
NCCAEVNT	15	0
NCCAL	19	1B
NCCANODA	3	40404040
NCCANODB	C	40404040
NCCAQULA	B	0
NCCAQULB	14	0
NCCAREST	19	0
NCCASRCB	2	D4
NCCCDL	2	
NCCCEND	9	0
NCCCEND2	11	0
NCCCEVNT	3	0
NCCCL	7	9
NCCCL2	9	11
NCCCPENC	9	0
NCCCREST	7	
NCCSRCB	2	D3
NCCEREST	7	0
NCCESRCB	2	D2
NCCIBFSZ	12	0
NCCIDL	2	
NCCIEND	29	0
NCCIEVNT	C	0
NCCIFEAT	25	
NCCIFLG	24	0
NCCIFLGM	24	80
NCCIFLGS	24	40
NCCIL	25	29
NCCILPAS	14	40404040
NCCIMHDR	25	10
NCCIMRCB	25	4
NCCINODE	3	40404040
NCCINOS	25	2
NCCINPAS	1C	40404040
NCCIPACK	25	10
NCCIPENC	25	1C
NCCIPRAW	25	14
NCCIPREP	25	80
NCCIQUAL	B	0

Table 299. Cross Reference for IAZYNCC (continued)

Name	Offset	Hex Tag
NCCIREST	10	0
NCCIRIF	25	8
NCCISRCB	1	C9
NCCISSIN	25	1
NCCITRM	25	40
NCCMXLEN	2A	29
NCCRCB	0	
NCCRCBF0	0	F0
NCCRID	0	
NCCSRCB	1	D1
NCCSRCB	1	
NCCSSRCB	2	D5

## IAZYTCT information

### IAZYTCT heading information

<b>Common name:</b>	NJE/TCP Control table
<b>Macro ID:</b>	IAZYTCT
<b>DSECT name:</b>	TCT, TCTRTNS
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'TCT' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 231 Key: 0 Residency: Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See TCTSIZE and TCTRSIZE equates
<b>Created by:</b>	Address space initialization for NJE/TCP server address space
<b>Pointed to by:</b>	An address-space level token named IAZYTCT in the IAZNJTCP network server address space. TPRMTCT field of the IAZYTPRM data area
<b>Serialization:</b>	None required
<b>Function:</b>	Defines parameters associated with the IAZNJTCP network server address space.

## IAZYTCT mapping

Table 300. Structure TCT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	TCT	NJE/TCP Control Table
0	(0)	CHARACTER	4	TCTEYE	Eye catcher
4	(4)	ADDRESS	2	TCTLEN	Length of status extension
4	(4)	X'1'	0	TCTVRSN1	"1" Version 1
4	(4)	X'1'	0	TCTCVRSN	"TCTVRSN1" Current version
6	(6)	ADDRESS	1	TCTVERS	Version
7	(7)	ADDRESS	1		Reserved
8	(8)	ADDRESS	4	TCTMNTCB	TCB address of main task
12	(C)	CHARACTER	4	TCTSSN	Subsystem name of owning JES
16	(10)	CHARACTER	8	TCTNDENM	NJE node name of owning JES
24	(18)	CHARACTER	16	TCTDEVNM	Device name associated with address space on owning JES (for messages)
40	(28)	BITSTRING	8	TCTJSDTA	Eight bytes of JES-dependent data to be associated with the server.
<p>IP address and port information.            If IP address or port values are filled in on input to IAZNJTCP, they will represent the IP address and/or port values that IAZNJTCP should use.            If IP address or port values are not filled in on input to IAZNJTCP, they will default to the primary IP address defined for this system (as returned by TCP/IP), and/or the well-known port address for TCP/IP NJE (either SSL or non-SSL address)</p>					
48	(30)	BITSTRING	1	TCTFLAG1	Flag byte 1
		1... ....		TCT1SSL	"B'10000000" Connections from this address space should use SSL protocols
<p>Trace values are initialized by JES when creating the TCT, and maintained by IAZNJTCP thereafter.</p>					
		.1.. ....		TCT1TRCJ	"B'01000000" JES Tracing active
		..1. ....		TCT1TRCC	"B'00100000" IAZNJTCP tracing active
		...1 ....		TCT1VERB	"B'00010000" Verbose mode for WTOs from server
		.... 1...		TCT1SSL0	"B'00001000" Only connect using TLS/SSL protocols
49	(31)	ADDRESS	1		Reserved
50	(32)	SIGNED	2	TCTKEEP1	Keep alive time interval
52	(34)	CHARACTER	255	TCTHSTNM(0)	IP host name (EBCDIC)
52	(34)	CHARACTER	255	TCTIPNAM	IP address (EBCDIC)
307	(133)	CHARACTER	1		Reserved
308	(134)	BITSTRING	16	TCTIPAD	128-bit IP address
324	(144)	CHARACTER	16	TCTSERVN	Service name (EBCDIC)
340	(154)	SIGNED	2	TCTPORT	Port number
342	(156)	BITSTRING	2	TCTBUFSZ	Max buffer size
344	(158)	BITSTRING	4	TCTIFEAT	Signon feature flags (See NCCIFEAT)
348	(15C)	CHARACTER	8	TCTSTACK	Name of TCP/IP stack

Table 300. Structure TCT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Work queue FIFO queue of work elements to be processed at the address space level. These work elements represent requests to start and stop connection subtasks. The work elements are mapped by IAZYTNRQ. Adding and removing elements from this queue requires use of the PLO instruction. The program-lock-token (PLT) value in R1 to serialize the operation should be the address of the queue head.					
356	(164)	ADDRESS	4	TCTNRQH	Queue head
360	(168)	ADDRESS	4	TCTNRQT	Queue tail
364	(16C)	SIGNED	4	TCTNRECB	ECB indicating work has arrived on the work queue
368	(170)	ADDRESS	4	TCTRTNL	Pointer to list of JES exit routines called by IAZNJTCP
372	(174)	ADDRESS	4	TCTSERVL	Pointer to list of IAZNJTCP service routines called by JES
376	(178)	BITSTRING	8	TCTIAZDT	8-bytes of IAZNJTCP-dependent data
384	(180)	ADDRESS	4	(3)	Reserved for future use
IAZNJTCP module information					
396	(18C)	ADDRESS	4	TCTTCPA	Addr of IAZNJTCP module
400	(190)	CHARACTER	11	TCTDATE	Date of assembly
411	(19B)	CHARACTER	1		Reserved
412	(19C)	CHARACTER	8	TCTTIME	Time of assembly
420	(1A4)	CHARACTER	8	TCTAPAR	APAR number from module
428	(1AC)	SIGNED	4	(9)	Reserved
464	(1D0)	DBL WORD	8	(0)	Double word alignment
464	(1D0)	X'1D0'	0	TCTSIZE	"*-TCT" Length of IAZYTCT

Table 301. Structure TCTRTNS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCTRTNS	, List of exit routines
0	(0)	CHARACTER	4	TCTREYE	Eyecatcher
4	(4)	ADDRESS	2	TCTRLEN	Length of status extension
4	(4)	X'1'	0	TCTRVRS1	"1" Version 1
4	(4)	X'1'	0	TCTRCVRS	"TCTRVRS1" Current version
6	(6)	ADDRESS	1	TCTRVERS	Version
7	(7)	ADDRESS	1	TCTRTNCT	Total number of routines
8	(8)	ADDRESS	4	TCTRLIST(0)	Start of routine list
8	(8)	ADDRESS	4	TCTR_AS_EARLY	Early address space init
12	(C)	ADDRESS	4	TCTR_AS_INIT	Address space initialization
16	(10)	ADDRESS	4	TCTR_AS_TERM	Address space termination
20	(14)	ADDRESS	4	TCTR_AS_NRQ	Address space network request
24	(18)	ADDRESS	4	TCTR_AS_TRACE	Address space trace request
28	(1C)	ADDRESS	4	TCTR_ST_INIT	Connection subtask initialization
32	(20)	ADDRESS	4	TCTR_ST_TERM	Connection subtask termination
36	(24)	ADDRESS	4	TCTR_ST_NRQ	Connection subtask network request
40	(28)	ADDRESS	4	TCTR_ST_NMS	Connection subtask network msg

Table 301. Structure TCTRTNS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	ADDRESS	4	TCTR_ST_TRACE	Connection subtask trace request
48	(30)	ADDRESS	4	TCTR_IN_NCC	Inbound NCC record processing
52	(34)	ADDRESS	4	TCTR_IN_NMR	Inbound NMR record processing
56	(38)	ADDRESS	4	TCTR_IN_SYSIN	Inbound SYSIN record processing
60	(3C)	ADDRESS	4	TCTR_IN_SYSOUT	Inbound SYSOUT record processing
64	(40)	ADDRESS	4	TCTR_OUT_SYSIN	Outbound SYSIN record processing
68	(44)	ADDRESS	4	TCTR_OUT_SYSOUT	Outbound SYSOUT record processing
72	(48)	ADDRESS	4	TCTR_CONN_REQ	Make connection primary (send "I")
76	(4C)	ADDRESS	4	TCTRLEND(0)	End of routine list
76	(4C)	X'11'	0	TCTR#RTN	"(TCTRLEND-TCTRLIST)/4" Number of routines in list
76	(4C)	X'4C'	0	TCTRSIZE	"*-TCTRTNS" Length of routine list

Table 302. Structure TCTSERVS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	TCTSERVS	
0	(0)	CHARACTER	4	TCTSEYE	Eyecatcher
4	(4)	ADDRESS	2	TCTSLEN	Length of status extension
4	(4)	X'1'	0	TCTSVRS1	"1" Version 1
4	(4)	X'1'	0	TCTSCVRS	"TCTSVRS1" Current version
6	(6)	ADDRESS	1	TCTSVERS	Version
7	(7)	ADDRESS	1	TCTSTNCT	Total number of routines
8	(8)	ADDRESS	4	TCTSLIST(0)	Start of routine list

TCTS\_ENQ - queues a NMR or NRQ to the server.  
On Entry R1 points to a list of 3 fullword  
parameters:  
Word 1: Address of NMS or NRQ  
Word 2: Address of queue head  
Word 3: Offset of next pointer in NMS or NRQ

8	(8)	ADDRESS	4	TCTS_ENQ	Queue NMR or NRQ to server
12	(C)	ADDRESS	4	TCTSLEND(0)	End of routine list
12	(C)	X'1'	0	TCTS#RTN	"(TCTSLEND-TCTSIST)/4" Number of routines in list
12	(C)	X'C'	0	TCTSSIZE	"*-TCTSERVS" Length of service routine list

Table 303. Cross Reference for IAZYTCT

Name	Offset	Hex	Tag
TCT	0		
TCTAPAR	1A4		
TCTBUFSZ	156		
TCTCVRSN	4		1
TCTDATE	190		
TCTDEVNM	18	40404040	
TCTEYE	0	E3C3E340	
TCTFLAG1	30		

Table 303. Cross Reference for IAZYTCT (continued)

Name	Offset	Hex Tag
TCTHSTNM	34	
TCTIAZDT	178	
TCTIFEAT	158	
TCTIPAD	134	
TCTIPNAM	34	
TCTJSDTA	28	
TCTKEEPI	32	
TCTLEN	4	1D0
TCTMNTCB	8	
TCTNDENM	10	40404040
TCTNRECB	16C	
TCTNRQH	164	
TCTNRQT	168	
TCTPORT	154	
TCTR_AS_EARLY	8	
TCTR_AS_INIT	C	
TCTR_AS_NRQ	14	
TCTR_AS_TERM	10	
TCTR_AS_TRACE	18	
TCTR_CONN_REQ	48	
TCTR_IN_NCC	30	
TCTR_IN_NMR	34	
TCTR_IN_SYSIN	38	
TCTR_IN_SYSOUT	3C	
TCTR_OUT_SYSIN	40	
TCTR_OUT_SYSOUT	44	
TCTR_ST_INIT	1C	
TCTR_ST_NMS	28	
TCTR_ST_NRQ	24	
TCTR_ST_TERM	20	
TCTR_ST_TRACE	2C	
TCTR#RTN	4C	11
TCTRCVRS	4	1
TCTREYE	0	D9E3D5E2
TCTRLEN	4	4C
TCTRLEND	4C	
TCTRLIST	8	
TCTRSIZE	4C	4C
TCTRTNCT	7	



Table 303. Cross Reference for IAZYTCT (continued)

Name	Offset	Hex	Tag
TCTRTNL	170		
TCTRTNS	0		
TCTRVERS	6		
TCTRVRS1	4		1
TCTS_ENQ	8		
TCTS#RTN	C		1
TCTSCVRS	4		1
TCTSERVL	174		
TCTSERVN	144		
TCTSERVS	0		
TCTSEYE	0	E2C5D9E5	
TCTSIZE	1D0		1D0
TCTSLEN	4		C
TCTSLEND	C		
TCTSLIST	8		
TCTSSIZE	C		C
TCTSSN	C	40404040	
TCTSTACK	15C		
TCTSTNCT	7		
TCTSVERS	6		
TCTSVRS1	4		1
TCTTCPA	18C		
TCTTIME	19C		
TCTVERS	6		
TCTVRSN1	4		1
TCT1SSL	30		80
TCT1SSL0	30		8
TCT1TRCC	30		20
TCT1TRCJ	30		40
TCT1VERB	30		10

## IAZYTDBC information

### IAZYTDBC heading information

**Common name:** NJE/TCP Data buffer  
**Macro ID:** IAZYTDBC  
**DSECT name:** DBC  
**Owning component:** JES Common (SC141)

**Eye-catcher ID:** 'PRM'  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 0  
Key: 0  
Residency: Virtual storage below 2G, real storage anywhere,  
in the private storage of the IAZNJTCP address space.

**Size:** See DBCSIZE equate

**Created by:** IAZNJTCP

**Pointed to by:** Register 1 on entry to NJE/TCP Processign Routines

**Serialization:** None required

**Function:** Used top pass individual data records between JES  
exit routines and IAZNJTCP.

## IAZYTDBC mapping

Table 304. Structure DBC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DBC	NJE/TCP Data record
0	(0)	CHARACTER	4	DBCEYE	Eye catcher
4	(4)	ADDRESS	2	DBCLEN	Length of status extension
4	(4)	X'1'	0	DBCVR51	"1" Version 1
4	(4)	X'1'	0	DBCCVRS	"DBCVR51" Current version
6	(6)	ADDRESS	1	DBCVERS	Version
7	(7)	BITSTRING	1	DBCFLG1	Flag byte 1
		1... ..		DBC_F1_CALL_AGAIN	"B'10000000" A "call again" condition exists for this buffer
		.1... ..		DBC_F1_RI_ISSUED	"B'01000000" Request to initiate stream issued
		..1. ....		DBC_F1_PI_ISSUED	"B'00100000" Receiver issued Permission to initiate stream
		...1 ....		DBC_F1_RC_ISSUED	"B'00010000" Receiver issued a Receiver Cancel on the stream
		.... 1...		DBC_F1_PI_RECEIVED	"B'00001000" Permission to initiate stream received
		.... .1..		DBC_F1_STRM_ACTIVE	"B'00000100" RI/PI is complete on the stream and the stream is currently active
		.... ..1.		DBC_F1_STRM_INACT	"B'00000010" RI received a RC or the stream is inactive
8	(8)	BITSTRING	1	DBCFLG2	Flag byte 2
		1... ..		DBC_F2_BUF_READY	"B'10000000" TCP/IP buffer is ready with data to be copied to the DBC buffer
		.1... ..		DBC_F2_PENDING_CPY	"B'01000000" If all of the TCP/IP transmission buffers are not available currently, this flag is set to indicate that data from DBC needs to be copied before calling the transmitter exit for more data
		..1. ....		DBC_F2_EOF_SENT	"B'00100000" Transmission reached an EOF and the transmitter sent the EOF to the receiver

Table 304. Structure DBC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		DBC_F2_TC_SENT	"B'00010000'" Indicate that transmit complete is sent by the receiver
		.... 1...		DBC_F2_XC_ISSUED	"B'00001000'" Transmitter cancel is issued on the xmitter
		.... .1..		DBC_F2_XC_RECEIVED	"B'00000100'" Transmitter cancel is received on the receiver
		.... ..1.		DBC_F2_XC_TO_ISSUE	"B'00000010'" Transmitter cancel to be issued on the xmitter
9	(9)	BITSTRING	1	DBCFLG3	Flag byte 3
		1... ....		DBC_F3_BUF_TRACE	"B'10000000'" JES is done tracing this buffer
		.1.. ....		DBC_F3_SPANNED_PRC	"B'01000000'" Spanned record is currently being processed
		..1. ....		DBC_F3_CALLAGN_CTL	"B'00100000'" A "call again" condition exists for a control record in this buffer
10	(A)	BITSTRING	1	DBCRCB	RCB of stream this record is associated with
11	(B)	BITSTRING	1	DBCRCB	SRCB of record
12	(C)	SIGNED	2	DBCLEN	Actual data length in buffer
14	(E)	BITSTRING	2		Reserved for IBM use
16	(10)	ADDRESS	4	DBC DATA	Address of data record
16	(10)	X'14'	0	DBC SIZE	"*-DBC" Length of DBC area

Table 305. Cross Reference for IAZYTDBC

Name	Offset	Hex Tag
DBC	0	
DBC_F1_CALL_AGAIN	7	80
DBC_F1_PI_ISSUED	7	20
DBC_F1_PI_RECEIVED	7	8
DBC_F1_RC_ISSUED	7	10
DBC_F1_RI_ISSUED	7	40
DBC_F1_STRM_ACTIVE	7	4
DBC_F1_STRM_INACT	7	2
DBC_F2_BUF_READY	8	80
DBC_F2_EOF_SENT	8	20
DBC_F2_PENDING_CPY	8	40
DBC_F2_TC_SENT	8	10
DBC_F2_XC_ISSUED	8	8
DBC_F2_XC_RECEIVED	8	4
DBC_F2_XC_TO_ISSUE	8	2
DBC_F3_BUF_TRACE	9	80
DBC_F3_CALLAGN_CTL	9	20
DBC_F3_SPANNED_PRC	9	40
DBCCVRS	4	1

Table 305. Cross Reference for IAZYTDBC (continued)

Name	Offset	Hex Tag
DBCADATA	10	
DBCADLEN	C	
DBCEYE	0	C4C2C340
DBCFLG1	7	
DBCFLG2	8	
DBCFLG3	9	
DBCLEN	4	14
DBCRCB	A	
DBCSize	10	14
DBCRCB	B	
DBCVERS	6	
DBCVRs1	4	1

## IAZYTnMS information

### IAZYTnMS heading information

<b>Common name:</b>	NJE/TCP Networking Message
<b>Macro ID:</b>	IAZYTnMS
<b>DSECT name:</b>	NMS
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'NMS' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Any Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See NMSSIZE equate
<b>Created by:</b>	
<b>Pointed to by:</b>	TPRMNMS field of the IAZYTPRM data area TSCTNMSH field of the IAZYTSCT data area TSCTNMST field of the IAZYTSCT data area
<b>Serialization:</b>	None required
<b>Function:</b>	Defines an outgoing network message (NCC or NMR) to be sent across a NJE connection.

## IAZYTNS mapping

Table 306. Structure NMS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NMS	NJE/TCP Control Table
0	(0)	CHARACTER	4	NMSEYE	Eye catcher
4	(4)	ADDRESS	2	NMSLEN	Length of status extension
4	(4)	X'1'	0	NMSVRSN1	"1" Version 1
4	(4)	X'1'	0	NMSCVRSN	"NMSVRSN1" Current version
6	(6)	ADDRESS	1	NMSVERS	Version
7	(7)	ADDRESS	1		Reserved
8	(8)	ADDRESS	4	NMSNEXT	Address of next message
12	(C)	ADDRESS	4	NMSPREV	Address of previous message
16	(10)	CHARACTER	16	NMSDEVNM	Device name associated with socket on owning JES (for messages)
32	(20)	SIGNED	2	NMSRECLN	Total length of data in NMSREC (including RID)
34	(22)	SIGNED	2		Reserved
36	(24)	BITSTRING	256	NMSREC	NJE Record in buffer
36	(24)	X'24'	0	NMSRCB	"NMSREC,1,C'X'" RCB (RIDRCB)
36	(24)	X'25'	0	NMSSRCB	"NMSREC+1,1,C'X'" SRCB (RIDSRCB)
36	(24)	X'26'	0	NMSDLEN	"NMSREC+2,1,C'X'" LRECL (RIDRLN)
36	(24)	X'27'	0	NMSDATA	"NMSREC+3,L'NMSREC-3,C'X'" Data
296	(128)	DBL WORD	8	NMSEND(0)	Doubleword align
296	(128)	X'128'	0	NMSSIZE	"*-NMS" Length of message request

Table 307. Cross Reference for IAZYTNMS

Name	Offset	Hex Tag
NMS	0	
NMSCVRSN	4	1
NMSDATA	24	27
NMSDEVNM	10	40404040
NMSDLEN	24	26
NMSEND	128	
NMSEYE	0	D5D4E240
NMSLEN	4	128
NMSNEXT	8	
NMSPREV	C	
NMSRCB	24	24
NMSREC	24	
NMSRECLN	20	
NMSSIZE	128	128
NMSSRCB	24	25
NMSVERS	6	
NMSVRSN1	4	1

## IAZYTNRQ information

### IAZYTNRQ heading information

<b>Common name:</b>	NJE/TCP Networking Request
<b>Macro ID:</b>	IAZYTNRQ
<b>DSECT name:</b>	NRQ
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'NRQ' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See NRQSIZE equate
<b>Created by:</b>	
<b>Pointed to by:</b>	TCTNRQH field of the IAZYTCT data area TCTNRQT field of the IAZYTCT data area TPRMNRQ field of the IAZYTPRM data area TSCTNRQH field of the IAZYTSCT data area TSCTNRQT field of the IAZYTSCT data area
<b>Serialization:</b>	None required
<b>Function:</b>	Defines a request to the NJE server address space to begin or end a NJE connection.

### IAZYTNRQ mapping

Table 308. Structure NRQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NRQ	NJE/TCP Control Table
0	(0)	CHARACTER	4	NRQEYE	Eye catcher
4	(4)	ADDRESS	2	NRQLEN	Length of status extension
4	(4)	X'1'	0	NRQVRSN1	"1" Version 1
4	(4)	X'1'	0	NRQCVRSN	"NRQVRSN1" Current version
6	(6)	ADDRESS	1	NRQVERS	Version
7	(7)	ADDRESS	1	NRQTYPE	Request type
7	(7)	X'1'	0	NRQTYPE_START_CONN	"1" Start connection type
7	(7)	X'2'	0	NRQTYPE_HALT_CONN	"2" Halt connection type
7	(7)	X'3'	0	NRQTYPE_STOP_CONN	"3" Stop connection type
7	(7)	X'4'	0	NRQTYPE_ENABLE_SESSP	"4" Enable all streams
7	(7)	X'5'	0	NRQTYPE_BEGIN_DIAG	"5" Begin session tracing
7	(7)	X'6'	0	NRQTYPE_END_DIAG	"6" End session tracing
7	(7)	X'7'	0	NRQTYPE_STOP_SERVER	"7" Stop server type
7	(7)	X'8'	0	NRQTYPE_RESET_SERVER	"8" Reset server type
8	(8)	BITSTRING	8	NRQJSDTA	Eight bytes of JES-dependent data

Table 308. Structure NRQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	ADDRESS	4	NRQNEXT	Next IAZYTNRQ on chain
20	(14)	ADDRESS	4	NRQPREV	Previous IAZYTNRQ on chain
24	(18)	BITSTRING	1	NRQERRC	NRQ processing code
24	(18)	X'4'	0	NRQERRC_START_CONN	"4" Start connection failure (retryable)
24	(18)	X'8'	0	NRQERRC_NO_RETRY	"8" Start connection failure (non-retryable)
25	(19)	BITSTRING	7		Reserved
32	(20)	DBL WORD	8	(0)	Start of request dependent data
32	(20)	BITSTRING	256	NRQDATA(0)	Request dependent data
Variable data for requests of types: NRQTYPE_START_CONN NRQTYPE_HALT_CONN NRQTYPE_STOP_CONN					
32	(20)	CHARACTER	16	NRQDEVNM	Device name associated with socket on owning JES (for messages)
Additional variable data for NRQTYPE_START_CONN					
48	(30)	CHARACTER	255	NRQIPNAM	IP address (EBCDIC)
303	(12F)	CHARACTER	1		Reserved
304	(130)	BITSTRING	16	NRQIPAD	128-bit IP address
320	(140)	CHARACTER	16	NRQPORTN	Port name (EBCDIC)
336	(150)	SIGNED	2	NRQPORT	Port number
338	(152)	CHARACTER	8	NRQNODEN	NJE node name of connecting node
346	(15A)	BITSTRING	1	NRQSFLG1	Initial tracing values for connection
		1... ....		NRQS1TRJ	"B'10000000" JES event and record trace
		.1.. ....		NRQS1TRC	"B'01000000" IAZNJTCP internal tracing
		..1. ....		NRQS1VRB	"B'00100000" IAZNJTCP verbose mode
		...1 ....		NRQS1TLS	"B'00010000" Enable TLS for this conn
347	(15B)	BITSTRING	1		Reserved
Variable data for requests of types: NRQTYPE_ENABLE_SESSP					
32	(20)	BITSTRING	2	NRQEBFSZ	Maximum buffer size allowed
34	(22)	BITSTRING	2		Reserved
36	(24)	BITSTRING	4	NRQIFEAT	Signon feature flags
40	(28)	ADDRESS	4	NRQNLDV(0)	Number of devices for each stream
40	(28)	ADDRESS	1	NRQJTNM	JTNUM (outbound SYSIN streams)
41	(29)	ADDRESS	1	NRQJRNM	JRNUM (inbound SYSIN streams)
42	(2A)	ADDRESS	1	NRQSTNM	STNUM (outbound SYSOUT streams)
43	(2B)	ADDRESS	1	NRQSRNM	SRNUM (inbound SYSOUT streams)
Variable data for requests of types: NRQTYPE_BEGIN_DIAG NRQTYPE_END_DIAG					
32	(20)	BITSTRING	1	NRQDFLG1	Tracing flags

Table 308. Structure NRQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		NRQD1TRJ	"B'10000000'" Begin/end event and record tracing (JES Traces)
		.1.. ....		NRQD1TRC	"B'01000000'" Begin/end event and record tracing (IAZNJTCP traces)
		..1. ....		NRQD1VRB	"B'00100000'" Begin/end verbose messages from IAZNJTCP
352	(160)	DBL WORD	8	NRQEND(0)	Double-word align
352	(160)	X'160'	0	NRQSIZE	"*-NRQ" Length of IAZYTNRQ request block

Table 309. Cross Reference for IAZYTNRQ

Name	Offset	Hex	Tag
NRQ	0		
NRQCVRSN	4		1
NRQDATA	20		
NRQDEVNM	20	40404040	
NRQDFLG1	20		
NRQD1TRC	20		40
NRQD1TRJ	20		80
NRQD1VRB	20		20
NRQEBFSZ	20		
NRQEND	160		
NRQERRC	18		
NRQERRC_NO_RETRY	18		8
NRQERRC_START_CONN	18		4
NRQEYE	0	D5D9D840	
NRQIFEAT	24		
NRQIPAD	130		
NRQIPNAM	30		
NRQJRM	29		
NRQJSDTA	8		
NRQJTNM	28		
NRQLEN	4		160
NRQNEXT	10		
NRQNLDV	28		
NRQNODEN	152		
NRQPORT	150		
NRQPORTN	140		
NRQPREV	14		
NRQSFLG1	15A		
NRQSIZE	160		160
NRQSRNM	2B		



Table 309. Cross Reference for IAZYTNRQ (continued)

Name	Offset	Hex Tag
NRQSTNM	2A	
NRQS1TLS	15A	10
NRQS1TRC	15A	40
NRQS1TRJ	15A	80
NRQS1VRB	15A	20
NRQTYPE	7	
NRQTYPE_BEGIN_DIAG	7	5
NRQTYPE_ENABLE_SESSP	7	4
NRQTYPE_END_DIAG	7	6
NRQTYPE_HALT_CONN	7	2
NRQTYPE_RESET_SERVER	7	8
NRQTYPE_START_CONN	7	1
NRQTYPE_STOP_CONN	7	3
NRQTYPE_STOP_SERVER	7	7
NRQVERS	6	
NRQVRSN1	4	1

## IAZYTPRM information

### IAZYTPRM heading information

<b>Common name:</b>	NJE/TCP Processing Routine Parameter Lists
<b>Macro ID:</b>	IAZYTPRM
<b>DSECT name:</b>	TPRM
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'PRM' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See TPRMSIZE equate
<b>Created by:</b>	
<b>Pointed to by:</b>	Register 1 on entry to NJE/TCP Processing Routines
<b>Serialization:</b>	None required
<b>Function:</b>	Defines parameter lists for each of the NJE/TCP Processing Routines

## IAZYTPRM mapping

Table 310. Structure TPRM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TPRM	NJE/TCP Control Table
0	(0)	CHARACTER	4	TPRMEYE	Eye catcher
4	(4)	ADDRESS	2	TPRMLEN	Length of status extension
4	(4)	X'1'	0	TPRMVRS1	"1" Version 1
4	(4)	X'1'	0	TPRMCVRS	"TPRMVRS1" Current version
6	(6)	ADDRESS	1	TPRMVERS	Version
7	(7)	ADDRESS	1		Reserved
8	(8)	ADDRESS	4	TPRMTCT	Address of IAZYTCT
12	(C)	ADDRESS	4	TPRMTSCT	Address of IAZYTSCT or 0
16	(10)	ADDRESS	4	TPRMNMS	Address of IAZYTNMS or 0
20	(14)	ADDRESS	4	TPRMNRQ	Address of IAZYTNRQ or 0
24	(18)	DBL WORD	8	TPRMDATA(0)	Variable data
Variable data for TRACE routines					
24	(18)	BITSTRING	1	TPRMTRFG	Flags
		1... ....		TPRMTRFI	"B'10000000'" Inbound data
		.1.. ....		TPRMTRFO	"B'01000000'" Outbound data
		..1. ....		TPRMTRFC	"B'00100000'" Control information
		...1 ....		TPRMRTI	"B'00010000'" Data is input to service
		.... 1...		TPMTRTO	"B'00001000'" Data is output fm service
25	(19)	BITSTRING	1		Reserved
26	(1A)	SIGNED	2	TPRMTRLN	Length of trace data
28	(1C)	ADDRESS	4	TPMRTRDT	Address of trace data
Variable data for SYSIN and SYSOUT data routines					
24	(18)	ADDRESS	4	TPRMDBCP	Address of IAZYTDBC or 0
28	(1C)	BITSTRING	1	TPRMTDFG	Flags
		1... ....		TPRMTDFT	"B'10000000'" Terminate current stream
		.1.. ....		TPRMTDFA	"B'01000000'" Terminate and ABEND link
29	(1D)	BITSTRING	3		Reserved
Variable data for CONN_REQ routine					
24	(18)	CHARACTER	8	TPRMNDEN	Adjacent node name
Variable data for ST_TERM routine					
24	(18)	BITSTRING	1	TPRMSTFG	Flags
		1... ....		TPRMSTNR	"B'10000000'" Non-retryable error
32	(20)	X'20'	0	TPRMSIZE	"*-TPRM" Length of parameter list

Table 311. Cross Reference for IAZYTPRM

Name	Offset	Hex Tag
TPRM	0	
TPRMCVRS	4	1
TPRM DATA	18	
TPRMDBCP	18	
TPRMEYE	0	D7D9D440
TPRMLEN	4	20
TPRMNDEN	18	
TPRMNMS	10	
TPRMNRQ	14	
TPRMSIZE	20	20
TPRMSTFG	18	
TPRMSTNR	18	80
TPRMTCT	8	
TPRMTDFA	1C	40
TPRMTDFG	1C	
TPRMTDFT	1C	80
TPRMTRDT	1C	
TPRMTRFC	18	20
TPRMTRFG	18	
TPRMTRFI	18	80
TPRMTRFO	18	40
TPRMTRLN	1A	
TPRMTRTI	18	10
TPRMTRTO	18	8
TPRMTSCT	C	
TPRMVERS	6	
TPRMVRS1	4	1

## IAZYTSCCT information

### IAZYTSCCT heading information

<b>Common name:</b>	NJE/TCP Socket Control Table
<b>Macro ID:</b>	IAZYTSCCT
<b>DSECT name:</b>	TSCT
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'TSCT' Offset: 0 Length: 4

<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See TSCTSIZE equate
<b>Created by:</b>	Task initialization for NJE connection task in NJE/TCP server address space
<b>Pointed to by:</b>	TPRMTSCT field of the IAZYTPRM data area
<b>Serialization:</b>	None required
<b>Function:</b>	Defines parameters associated with a specific NJE TCP/IP connection

## IAZYTSC mapping

Table 312. Structure TSCT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TSCT	NJE/TCP Socket Control Table
0	(0)	CHARACTER	4	TSCTEYE	Eye catcher
4	(4)	ADDRESS	2	TSCTLEN	Length of status extension
4	(4)	X'1'	0	TSCTVRS1	"1" Version 1
4	(4)	X'1'	0	TSCTCVRS	"TSCTVRS1" Current version
6	(6)	ADDRESS	1	TSCTVERS	Version
7	(7)	ADDRESS	1		Reserved
8	(8)	CHARACTER	16	TSCTDVNM	Device name associated with socket on owning JES (for messages)
24	(18)	CHARACTER	8	TSCTNDNM	NJE node name of adjacent node
32	(20)	BITSTRING	8	TSCTJSDT	JES-dependent data
<p>Work queue FIFO queue of work elements to be processed at the socket level. These work elements represent requests change the status or attributes of a connection subtask. These work elements are mapped by IAZYTNRQ. Adding and removing elements from this queue requires use of the PLO instruction. The program-lock-token (PLT) value in R1 to serialize the operation should be the address of the queue head.</p>					
40	(28)	ADDRESS	4	TSCTNRQH	IAZYTNRQ queue head
44	(2C)	ADDRESS	4	TSCTNRQT	IAZYTNRQ queue tail
48	(30)	SIGNED	4	TSCTQECB	ECB indicating work has arrived on the work queue
<p>IP address and port information. These values are filled in by IAZNJTCP after the socket has been created and represent the IP address and port on the other end of the connection.</p>					
52	(34)	CHARACTER	255	TSCTHSTN(0)	IP host name (EBCDIC)
52	(34)	CHARACTER	255	TSCTIPNM	IP address (EBCDIC)
307	(133)	CHARACTER	1		Reserved
308	(134)	BITSTRING	16	TSCTIPAD	128-bit IP address
324	(144)	CHARACTER	16	TSCTPRTN	Port name (EBCDIC)
340	(154)	BITSTRING	2	TSCTPORT	Port number

Table 312. Structure TSCT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
342	(156)	BITSTRING	1	TSCTFLG1	Flags
Trace values are initialized by IAZNJTCP from the START_CONN NRQ, and maintained by IAZNJTCP thereafter					
		1... ....		TSCT1TRJ	"B'10000000" JES tracing active for line
		.1.. ....		TSCT1TRC	"B'01000000" IAZNJTCP tracing active
		..1. ....		TSCT1VRB	"B'00100000" IAZNJTCP WTO verbose mode
		...1 ....		TSCT1TLS	"B'00010000" Indicate secure TLS connection
		.... 1...		TSCT1UNK	"B'00001000" TSCTNDNM is not valid
343	(157)	BITSTRING	1		Reserved
344	(158)	BITSTRING	8	TSCTIAZD	8-bytes of IAZNJTCP-dependent data
352	(160)	SIGNED	4	TSCTSKID	Socket identifier
356	(164)	ADDRESS	4	(3)	Reserved
Sub-device parameter definitions For each socket, there are potentially many streams: - Up to 8 inbound device streams - Up to 8 outbound device streams - Inbound and outbound control streams (NCC records) - Inbound and outbound message streams (NMR records) The following contain definitions for each individual stream.					
368	(170)	DBL WORD	8	(0)	Alignment for subsections
368	(170)	BITSTRING	64	TSCTINST(8)	Definitions for 8 inbound streams
432	(1B0)	BITSTRING	1	TSCTOUST(8)	Definitions for 8 outbound streams
Outbound message and control record queue FIFO queue of outbound network messages and control records (NCC records and NMRs). These messages are mapped by IAZYTNMS. Adding and removing elements from this queue requires use of the PLO instruction. The program-lock-token (PLT) value in R1 to serialize the operation should be the address of the queue head.					
496	(1F0)	ADDRESS	4	TSCTNMSH	IAZYNMS outbound queue head
500	(1F4)	ADDRESS	4	TSCTNMST	IAZYNMS outbound queue tail
504	(1F8)	SIGNED	4	TSCTNECB	ECB indicating work has arrived on the work queue
508	(1FC)	SIGNED	4		Reserved
IAZNJSTK module information					
512	(200)	ADDRESS	4	TSCTSTKA	Addr of IAZNJSTK module
516	(204)	CHARACTER	11	TSCTDATE	Date of assembly
527	(20F)	CHARACTER	1		Reserved
528	(210)	CHARACTER	8	TSCTTIME	Time of assembly
536	(218)	CHARACTER	8	TSCTAPAR	APAR number from module
544	(220)	SIGNED	4	(8)	Reserved
576	(240)	DBL WORD	8	TSCTEND(0)	Doubleword align
576	(240)	X'240'	0	TSCTSIZE	"*-TSCT" Length of IAZYTSCT

Table 313. Structure TSCTIN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TSCTIN	, Inbound subdevice parameters
0	(0)	BITSTRING	1	TSCTIN_RCB	RCB of inbound stream
1	(1)	BITSTRING	3		Reserved
4	(4)	SIGNED	4	TSCTIN_ECB	ECB posted by subdevice when JES processing routine is ready to accept new work
8	(8)	DBL WORD	8	(0)	Force alignment
8	(8)	X'8'	0	TSCTIN_LEN	"*-TSCTIN" Length of subsection

Table 314. Structure TSCTOUT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TSCTOUT	, Outbound subdevice parameters
0	(0)	BITSTRING	1	TSCTOUT_RCB	RCB of outbound stream
1	(1)	BITSTRING	3		Reserved
4	(4)	SIGNED	4	TSCTOUT_ECB	ECB posted by subdevice when JES processing routine has new work to be processed
8	(8)	DBL WORD	8	(0)	Force alignment
8	(8)	X'8'	0	TSCTOUT_LEN	"*-TSCTOUT" Length of subsection

Table 315. Cross Reference for IAZYTSCT

Name	Offset	Hex	Tag
TSCT	0		
TSCTAPAR	218		
TSCTCVRS	4		1
TSCTDATE	204		
TSCTDVNM	8	40404040	
TSCTEND	240		
TSCTEYE	0	E3E2C3E3	
TSCTFLG1	156		
TSCTHSTN	34		
TSCTIAZD	158		
TSCTIN	0		
TSCTIN_ECB	4		
TSCTIN_LEN	8		8
TSCTIN_RCB	0		
TSCTINST	170		
TSCTIPAD	134		0
TSCTIPNM	34	40404040	
TSCTJSDT	20		
TSCTLEN	4		240
TSCTNDNM	18	40404040	
TSCTNECB	1F8		

Table 315. Cross Reference for IAZYTSCT (continued)

Name	Offset	Hex Tag
TSCTNMSH	1F0	
TSCTNMST	1F4	
TSCTNRQH	28	
TSCTNRQT	2C	
TSCTOUST	1B0	
TSCTOUT	0	
TSCTOUT_ECB	4	
TSCTOUT_LEN	8	8
TSCTOUT_RCB	0	
TSCTPORT	154	0
TSCTPRTN	144	40404040
TSCTQECB	30	
TSCTSIZE	240	240
TSCTSKID	160	
TSCTSTKA	200	
TSCTTIME	210	
TSCTVERS	6	
TSCTVRS1	4	1
TSCT1TLS	156	10
TSCT1TRC	156	40
TSCT1TRJ	156	80
TSCT1UNK	156	8
TSCT1VRB	156	20

## IAZYTTRC information

### IAZYTTRC heading information

<b>Common name:</b>	NJE/TCP Trace data
<b>Macro ID:</b>	IAZYTTRC
<b>DSECT name:</b>	TTRC
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	'TTRC' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 0 Key: 0 Residency: Virtual storage below 2G, real storage anywhere, in the private storage of the IAZNJTCP address space.
<b>Size:</b>	See DBCSIZE equate

**Created by:** IAZNJTCP

**Pointed to by:** TPRMTRDT field of the IAZYTPRM data area

**Serialization:** None required

**Function:** Maps control information for tracing by the JES trace exit routine (TCTR\_AS\_TRACE or TCTR\_ST\_TRACE). The variable data pointed to by TPRMTRDT on input to the routine maps using this DSECT if the flag TPRMTRFC is set.

## IAZYTTRC mapping

Table 316. Structure TTRC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TTRC	NJE/TCP Data record
0	(0)	CHARACTER	4	TTRCEYE	Eye catcher
4	(4)	CHARACTER	20	TTRCSRVN	Service name
24	(18)	BITSTRING	4		Reserved
Input to service					
28	(1C)	BITSTRING	255	TTRCINP(0)	Input to service
Output from service					
28	(1C)	BITSTRING	4	TTRCOURT	Return code from service
32	(20)	BITSTRING	4	TTRCOURS	Reason code from service
36	(24)	BITSTRING	255	TTRCOUTP(0)	Output from service

Table 317. Cross Reference for IAZYTTTRC

Name	Offset	Hex Tag
TTRC	0	
TTRCEYE	0	E3E3D9C3
TTRCINP	1C	
TTRCOURS	20	
TTRCOURT	1C	
TTRCOUTP	24	
TTRCSRVN	4	

## ICHPT information

### ICHPT heading information

**Common name:** Installation Channel Path Table

**Macro ID:** IHAICHPT

**DSECT name:** ICHPT

**Owning component:** I/O Supervisor (SC1C3)

**Eye-catcher ID:** None



**Storage attributes:** Subpool: 245  
Key: 0

**Size:** 156 bytes

**Created by:** IEAVNP02

**Pointed to by:** CVTICHPT field of the CVT data area

**Serialization:** None

**Function:** Maps the 256 possible channel paths (CHPID) between the channel and the control units.

## ICHPT mapping

Table 318. Structure ICHPT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	256	ICHPT	
0	(0)	BITSTRING	1	ICHARRAY(0:255)	Array of 256 entries to map each unique channel path. NOTE: Only valid states---- X'E0',X'C0',X'80',X'00',X'F0',X'E8',X'F8'
		1... ....		ICHCONFIG	This CHPID is VALID for this installation. If 0, then ICHOWNED = 0 and ICHONLIN = 0.
		.1.. ....		ICHOWNED	This CHPID is OWNED by This system. If 1, then ICHCONFIG = 1. If 0, then ICHONLIN = 0.
		..1. ....		ICHONLIN	This CHPID is ONLINE. If 1, then ICHCONFIG = 1 and ICHOWNED = 1.
		...1 ....		ICHRCVIP	If 1, this CHPid is currently undergoing channel path recovery.
		.... 1...		ICHVOIP	If 1, Vary Offline in progress for CHPID.
		.... .1..		ICHFORER	If 1, channel path recovery was unable to complete for a FORCE Channel Path Offline request.
		.... ..1.		ICHRCVLS	If 1, channel path recovery has started its last scan of the UCBs.

## ICHS information

### ICHS heading information

**Common name:** IOS Channel Subsystem Information

**Macro ID:** IOSDICHS

**DSECT name:** ICHS

**Owning component:** I/O Supervisor (SC1C3)

**Eye-catcher ID:** ICHS  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: 31-bit storage

**Size:** See assembler listing  
**Created by:** - IOSNCHSF  
**Pointed to by:** - SCVTCHSI  
**Serialization:** None  
**Function:** This macro maps a header for the channel subsystem information (CHSI). The header is followed by the CHSI. The CHSI portion is mapped by the IEEMCHSI control block.

## ICHS mapping

Table 319. Structure ICHS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	ICHS	
0	(0)	CHARACTER	16	ICHSHEAD	Header
0	(0)	CHARACTER	4	ICHSNAME	Control block acronym
4	(4)	UNSIGNED	1	ICHSVER	Version of control block
5	(5)	CHARACTER	5	ICHSCMP	Component identification.
10	(A)	CHARACTER	2	ICHSFLGS	Flags.
10	(A)	BITSTRING	1	ICHSFLG1	First byte of flags.
		1... ....		ICHSVALD	CHSI valid flag, set to zero, invalid, when there was a SCLP error and the channel subsystem information could not be obtained. Set to one, valid, when the information was obtained and stored in the CHSI.
		.111 1111		*	Reserved.
11	(B)	BITSTRING	1	*	Reserved.
12	(C)	CHARACTER	4	*	Reserved.
16	(10)	CHARACTER	8	ICHSCHSI	Channel subsystem information.

Table 320. Constants for ICHS

Len	Type	Value	Name	Description
Constants definitions				
4	CHARACTER	ICHS	ICHSID	Control block ID.
1	DECIMAL	1	ICHSVER1	Version one of the control block.
5	CHARACTER	SC1C3	ICHSCOMP	Component control block belongs to.

Table 321. Cross Reference for ICHS

Name	Offset	Hex	Tag
ICHS	0		
ICHSCHSI	10		
ICHSCMP	5		
ICHSFLGS	A		
ICHSFLG1	A		
ICHSHEAD	0		
ICHSNAME	0		

Table 321. Cross Reference for ICHS (continued)

Name	Offset	Hex Tag
ICHSVAlD	A	80
ICHSVeR	4	

## ICSC information

### ICSC heading information

<b>Common name:</b>	System Resource Manager Installation Control Specification - Common Section
<b>Macro ID:</b>	IRAICSC
<b>DSECT name:</b>	ICSC (unless DSECT=NO is coded)
<b>Owning component:</b>	System Resource Manager (SC1CX)
<b>Eye-catcher ID:</b>	N/A
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above 16M line
<b>Size:</b>	40 bytes
<b>Created by:</b>	IEEMB812, IEAVNP10
<b>Pointed to by:</b>	RMCTICST field of the RMCT data area
<b>Serialization:</b>	SRM Lock
<b>Function:</b>	Contains data identifying the current Installation Control Specification (ICS)

### ICSC mapping

Table 322. Structure ICSC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	ICSC	
0	(0)	CHARACTER	2	ICSCNAME	MEMBER ID
2	(2)	CHARACTER	1	ICSCMSKC	MASK CHARACTER
3	(3)	BITSTRING	1	ICSCFLAG	STATUS FLAGS
		1... ..		ICSCTS0	TSO SUBSYSTEM SPECIFIED
		.1.. ..		ICSCSTC	STC SUBSYSTEM SPECIFIED
		..1. ....		ICSCREPT	NON-TSO RPRTG ACTIVE
		...1 ....		ICSCRTS0	TSO REPORTING ACTIVE
		.... 1...		ICSCGRS	GRS WITH CONTROL PGN SPECIFIED
		.... .1..		ICSCMS6	MS6 has seen this
		.... ..1.		ICSC851E	IRA851E has been issued
		.... ...1		ICSCRSV2	RESERVED
4	(4)	SIGNED	4	ICSC LNG	TOTAL TABLE LENGTH
8	(8)	BITSTRING	8	ICSC TOC	TIME OF 'SET ICS' PROCESSING
16	(10)	ADDRESS	4	ICSC SET	'SET ICS' ROUTINE ADDRESS
20	(14)	SIGNED	2	ICSCHPGN	HIGHEST PG IN MEMBER

Table 322. Structure ICSC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
22	(16)	SIGNED	2	ICSCUPGN	CNT OF UNIQUE PGNS
24	(18)	SIGNED	2	ICSCLRPG	LOWEST RPGN IN MEMBER
26	(1A)	SIGNED	2	ICSCHRPg	HIGHEST RPGN IN MEMBER
28	(1C)	SIGNED	2	ICSCURPG	CNT OF UNIQUE RPGNS
30	(1E)	SIGNED	2	ICSCRSV3	RESERVED
32	(20)	ADDRESS	4	ICSCRpVT	ADDRESS OF RPGN VECTOR TABLE
36	(24)	ADDRESS	4	ICSCNICS	FOR SET, ADDR OF NEXT ICSC
40	(28)	CHARACTER	0	ICSCEND	END OF ICSC

Table 323. Cross Reference for ICSC

Name	Offset	Hex Tag
ICSC	0	
ICSCEND	28	
ICSCFLAG	3	
ICSCGRS	3	08
ICSCHPGN	14	
ICSCHRPg	1A	
ICSClNG	4	
ICSCLRPG	18	
ICSCMSKC	2	
ICSCMS6	3	04
ICSCNAME	0	
ICSCNICS	24	
ICSCREPT	3	20
ICSCRpVT	20	
ICSCRSV2	3	01
ICSCRSV3	1E	
ICSCRTS0	3	10
ICSCSET	10	
ICSCSTC	3	40
ICSCTOC	8	
ICSCTS0	3	80
ICSCUPGN	16	
ICSCURPG	1C	
ICSC851E	3	02

## ICT information

### ICT heading information

**Common name:** System Resource Manager I/O Management Control Table

**Macro ID:** IRAICT

**DSECT name:** ICT (unless DSECT=NO is coded)

**Owning component:** System Resource Manager (SC1CX)

**Eye-catcher ID:** ICT  
Offset: 0  
Length: CHAR(4)

**Storage attributes:** Subpool: Nucleus  
Key: 0  
Residency: Nucleus (above 16M line)

**Size:** 72 bytes

**Created by:** Assembled into nucleus module IRARMCNS

**Pointed to by:** RMCTICT field of the RMCT data area

**Serialization:** SRM lock

**Function:** Contains logical channel usage information for use by SRM I/O management modules

## ICT mapping

Table 324. Structure ICT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	72	ICT	I/O CONTROL TABLE
0	(0)	CHARACTER	4	ICTICT	ACRONYM IN EBCDIC -ICT-
I/O CONTROL CONSTANTS					
4	(4)	SIGNED	2	ICCNDCTI	AVG CONNECT TIME/EXCP
6	(6)	SIGNED	2	ICCTPILO	LOW THRESHOLD FOR PERCENT TPI INTERRUPTS
8	(8)	SIGNED	2	ICCTPIHI	HIGH THRESHOLD FOR PERCENT TPI INTERRUPTS
10	(A)	SIGNED	2	ICCRSV1	4@L1C
12	(C)	SIGNED	2	ICCRSV2	
14	(E)	SIGNED	2	ICCTPIRL	Recommended CPENABLE low threshold value
16	(10)	SIGNED	2	ICCTPIRH	Recommended CPENABLE high threshold value
18	(12)	SIGNED	2	ICCEDMDL	EST DD DMB DLAY IMPACT (PERCENT TIMES 100)
20	(14)	CHARACTER	0	ICCEND	END OF ICT CONSTANTS
VARIABLES FOR SELECTIVE I/O ENABLEMENT					
20	(14)	SIGNED	4	ICVTPIB	BASE COUNT OF I/O INTERRUPTS VIA TPI
24	(18)	SIGNED	4	ICVSLIHB	BASE COUNT OF I/O INTERRUPTS VIA SLIH
28	(1C)	SIGNED	2	ICVTPIP	PERCENT OF I/O INTERRUPTS HANDLED VIA TPI (PERCENT * 100)
30	(1E)	SIGNED	2	ICVRSVA	RESERVED
32	(20)	SIGNED	4	ICVRSV1	

Table 324. Structure ICT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
I/O RELATED MESSAGE POINTERS					
36	(24)	ADDRESS	4	ICCMS600	SRM CHANNEL DATA NOW AVAILABLE - IRA600I
40	(28)	ADDRESS	4	ICCMS601	SRM CHANNEL DATA NO LONGER AVAILABLE - IRA601I
44	(2C)	ADDRESS	4	ICCMS602	XX,SRM CHANNEL MEASUREMENTS TERMINATED - IRA602I
48	(30)	ADDRESS	4	ICCMS603	XX,SYSTEM ACTIVITY DISPLAY COUNTS NO LONGER BEING USED FOR CHANNEL UTILIZATIONS - 1RA603I
52	(34)	ADDRESS	4	ICCMS604	CHANNEL PATH MEASUREMENT FACILITY DATA NO LONGER AVAILABLE
56	(38)	ADDRESS	4	ICCMS605	CHANNEL PATH MEASUREMENT FACILITY RESTART IN PROGRESS
I/O CONTROL FLAGS					
60	(3C)	BITSTRING	1	ICTFLAGS	I/O CONTROL FLAGS
		1111 ....		ICTDRSV4	RESERVED 3@L1D
		.... 1...		ICTDISAB	DISABLE REQUEST TO IL5
		.... .111		*	RESERVED
61	(3D)	BITSTRING	3	ICTRSVA	RESERVED
64	(40)	SIGNED	4	ICTRSVB	RESERVED
68	(44)	SIGNED	4	ICTRSVC	RESERVED
72	(48)	CHARACTER	0	ICTEND	END OF ICT END OF THIS BLOCK

Table 325. Cross Reference for ICT

Name	Offset	Hex	Tag
ICCEDMDL	12		
ICCEND	14		
ICCMS600	24		
ICCMS601	28		
ICCMS602	2C		
ICCMS603	30		
ICCMS604	34		
ICCMS605	38		
ICCNDCTI	4		
ICCRSV1	A		
ICCRSV2	C		
ICCTPIHI	8		
ICCTPILO	6		
ICCTPIRH	10		
ICCTPIRL	E		
ICT	0		
ICTDISAB	3C		

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Table 325. Cross Reference for ICT (continued)

Name	Offset	Hex Tag
ICTDRSV4	3C	F0
ICTEND	48	
ICTFLAGS	3C	
ICTICT	0	
ICTRSVA	3D	
ICTRSVB	40	
ICTRSVC	44	
ICVRSVA	1E	
ICVRSV1	20	
ICVSLIHB	18	
ICVTPIB	14	
ICVTPIP	1C	

## IDAL information

### IDAL heading information

<b>Common name:</b>	TCCW Translator Indirect Address List
<b>Macro ID:</b>	IECDIDAL
<b>DSECT name:</b>	IDAL
<b>Owning component:</b>	Execute Channel Program Processor (SC1C6)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 226 Key: 0
<b>Size:</b>	Variable
<b>Created by:</b>	Callers of the CCW translation module, IECVTCCW
<b>Pointed to by:</b>	TCCWIDAL field of the TCCW data area IDALCHN field of the IDAL data area
<b>Serialization:</b>	Local lock
<b>Function:</b>	Contains all the Indirect Address Words (IDAWs) generated by the TCCW translator (IECVTCCW) in translating the callers virtual channel program to a real channel program. It also contains the IDAWs as a result of a callers virtual IDAW CCW.

### IDAL mapping

Table 326. Structure IDAL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IDAL	
0	(0)	ADDRESS	4	IDALCHN	IDAL block chain pointer
4	(4)	ADDRESS	4		Reserved

Table 326. Structure IDAL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	X'8'	0	IDALHL	"*-IDAL" IDAL header block length
8	(8)	ADDRESS	4	IDALENTY	Indirect address list entry
8	(8)	X'4'	0	IDALEL	"*-IDALENTY" IDAW length
8	(8)	X'26'	0	IDALNE	"38" number of IDAW entries- 160 byte
8	(8)	X'3C'	0	IDALNEL	"60" number of IDAW entries- 248 byte
8	(8)	X'A0'	0	IDALBL	"IDALHL+IDALEL*IDALNE" IDAL block length

## IDX information

### IDX programming interface information

IDX is a programming interface.

### IDX heading information

<b>Common name:</b>	Index table
<b>Macro ID:</b>	IAZIDX
<b>DSECT name:</b>	IAZIDX
<b>Owning component:</b>	JES Common (SC141)
<b>Eye-catcher ID:</b>	IDX Offset: IDXID Length: L'IDXID
<b>Storage attributes:</b>	Subpool: 230 Key: TCB key of FSS Residency: Virtual 24-bit, Real 31-bit
<b>Size:</b>	See IDXESIZ
<b>Created by:</b>	HASPFSSM (JES2) IATFPRA (JES3)
<b>Pointed to by:</b>	GCBIDX field of the \$GCB (JES2) INPXINDX field of the IATYINPX (JES3) GLRINDX field of the IAZFSIP parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	Has information about a single record being processed by an FSS. The IDX is filled in by the JES and used by the FSS.

### IDX mapping

Table 327. Structure IAZIDX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IAZIDX	
0	(0)	X'0'	0	IDX	"IAZIDX" ALTERNATE DSECT NAME



Table 327. Structure IAZIDX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	4	IDXID	INDEX TABLE ID
4	(4)	SIGNED	2	IDXNUM	NUMBER OF ENTRIES IN TABLE
6	(6)	SIGNED	2	IDXTOK	JES SUPPLIED TOKEN
8	(8)	SIGNED	4		RESERVED
8	(8)	X'C'	0	IDXSIZ	"*-IDX" FIXED INDEX HEADER SIZE
INDEX ENTRY					
12	(C)	SIGNED	4	IDXENTRY(0)	INDEX ENTRY
12	(C)	SIGNED	2	IDXENTRL	LENGTH OF THE INDEX ENTRY
14	(E)	SIGNED	2	IDXRECL	LENGTH OF THE DATA PORTION
16	(10)	ADDRESS	1	IDXFLAG1	FLAG BYTE
	1... ..			IDXDSR	"B'10000000'" INDICATES DATA STREAM RECORD
	.1.. ..			IDXLMR	"B'01000000'" INDICATES LINE MODE RECORD
	..1. ....			IDXANSI	"B'00100000'" REC CONTAINS ANSI CNTRL CHARS
	...1 ....			IDXMACH	"B'00010000'" REC CONTAINS MACH CNTRL CHARS
	.... 1...			IDXSRS	"B'00001000'" RECORD SPLIT - START OF REC
	.... .1..			IDXSRM	"B'00000100'" RECORD SPLIT - MIDDLE OF REC
	.... ..1.			IDXSRE	"B'00000010'" RECORD SPLIT - END OF REC
	.... ...1			IDXOPJ	"B'00000001'" OPTCODE=J USED FOR REC
17	(11)	ADDRESS	1		RESERVED
18	(12)	ADDRESS	2	IDXORECL	Original LRECL of record (only passed if start or only IDX for record)
20	(14)	ADDRESS	4	IDXRADR	ADDR OF THE DATA PORTION OF REC
24	(18)	CHARACTER	8	IDXRECID	RECORD IDENTIFIER
32	(20)	SIGNED	4	(0)	BOUNDARY ALIGNMENT
32	(20)	X'14'	0	IDXSIZ	"*-IDXENTRY" INDEX ENTRY SIZE

Table 328. Cross Reference for IDX

Name	Offset	Hex Tag
IAZIDX	0	
IDX	0	0
IDXANSI	10	20
IDXDSR	10	80
IDXENTRL	C	
IDXENTRY	C	
IDXSIZ	20	14
IDXFLAG1	10	
IDXID	0	
IDXLMR	10	40

Table 328. Cross Reference for IDX (continued)

Name	Offset	Hex Tag
IDXMACH	10	10
IDXNUM	4	
IDXOPJ	10	1
IDXORECL	12	
IDXRADR	14	
IDXRECID	18	
IDXRECL	E	
IDXSIZ	8	C
IDXSRE	10	2
IDXSRM	10	4
IDXSRS	10	8
IDXTOK	6	

## IEAASM information

### IEAASM programming interface information

IEAASM is a programming interface.

### IEAASM heading information

<b>Common name:</b>	Supervisor Callable Services Asm Declarations
<b>Macro ID:</b>	IEAASM
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	IEAASM defines Supervisor constants for programs written in the Assembler language

## IEAASM mapping

Table 329. Structure IEAFAPEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAFAPEPARMLIST	
0	(0)	ADDRESS	4	IEAFAPERETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAFAPEAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAFAPEPAUSEELEMENTTOKENPTR	Pause Element Token Address

Table 330. Structure IEAVDPEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVDPEPARMLIST	
0	(0)	ADDRESS	4	IEAVDPERETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVDPEAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVDPEPAUSEELEMENTTOKENPTR	Pause Element Token Address

Table 331. Structure IEAVPSEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVPSEPARMLIST	
0	(0)	ADDRESS	4	IEAVPSERETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVPSEAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVPSECURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVPSEUPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
16	(10)	ADDRESS	4	IEAVPSERELEASECODE	Release Code Address Address

Table 332. Structure IEAVRLSPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVRLSPARMLIST	
0	(0)	ADDRESS	4	IEAVRLSRETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVRLSAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVRLSTARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVRLSTARGETDURELEASECODE	Release Code Address

Table 333. Structure IEAVXFRPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVXFRPARMLIST	
0	(0)	ADDRESS	4	IEAVXFRRETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVXFRAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVXFCURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVXFRUPDATEDPAUSEELEMENTTOKENPTR	

Table 333. Structure IEAVXFRPARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	ADDRESS	4	IEAVXFRCURRENTDURELEASECODE	Updated Pause Element Token Address
20	(14)	ADDRESS	4	IEAVXFRTARGETDUPAUSEELEMENTTOKENPTR	Release Code Address
24	(18)	ADDRESS	4	IEAVXFRTARGETDURELEASECODE	Pause Element Token Address Release Code Address

Table 334. Structure IEAVRPIPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVRPIPARMLIST	
0	(0)	ADDRESS	4	IEAVRPIRETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVRPIAUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVRPIPAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVRPIAUTHORIZATIONPTR	PE creator's authority Address
16	(10)	ADDRESS	4	IEAVRPIOWNERPTR	PE owner's STOKEN Address
20	(14)	ADDRESS	4	IEAVRPISTATEPTR	Address of PE's state
24	(18)	ADDRESS	4	IEAVRPIRELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 335. Structure IEAVTPEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVTPEPARMLIST	
0	(0)	ADDRESS	4	IEAVTPERRETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVTPEPAUSEELEMENTTOKENPTR	Pause Element Token Address
8	(8)	ADDRESS	4	IEAVTPESTATEPTR	Address of PE's state
12	(C)	ADDRESS	4	IEAVTPERELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 336. Structure IEAVAPE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVAPE2PARMLIST	
0	(0)	ADDRESS	4	IEAVAPE2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVAPE2AUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVAPE2PAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVAPE2PEOWNERSTOKENPTR	Pause Element Owner Stoken Address
16	(10)	ADDRESS	4	IEAVAPE2OWNERTERMINATIONRELEASECODEPTR	Owner Termination Release Code Address
20	(14)	ADDRESS	4	IEAVAPE2LINKAGEPTR	Linkage Address

Table 337. Structure IEAVDPE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVDPE2PARMLIST	
0	(0)	ADDRESS	4	IEAVDPE2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVDPE2PAUSEELEMENTTOKENPTR	Pause Element Token Address
8	(8)	ADDRESS	4	IEAVDPE2LINKAGEPTR	Linkage Address

Table 338. Structure IEAVPSE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVPSE2PARMLIST	
0	(0)	ADDRESS	4	IEAVPSE2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVPSE2CURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
8	(8)	ADDRESS	4	IEAVPSE2UPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
12	(C)	ADDRESS	4	IEAVPSE2RELEASECODE	Release Code Address Address
16	(10)	ADDRESS	4	IEAVPSE2LINKAGEPTR	Linkage Address

Table 339. Structure IEAVRLS2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVRLS2PARMLIST	
0	(0)	ADDRESS	4	IEAVRLS2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVRLS1TARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
8	(8)	ADDRESS	4	IEAVRLS2TARGETDURELEASECODE	Release Code Address
12	(C)	ADDRESS	4	IEAVRLS2LINKAGEPTR	Linkage Address

Table 340. Structure IEAVXFR2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVXFR2PARMLIST	
0	(0)	ADDRESS	4	IEAVXFR2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVXFR2CURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
8	(8)	ADDRESS	4	IEAVXFR2UPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
12	(C)	ADDRESS	4	IEAVXFR2CURRENTDURELEASECODE	Release Code Address
16	(10)	ADDRESS	4	IEAVXFR2TARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
20	(14)	ADDRESS	4	IEAVXFR2TARGETDURELEASECODE	Release Code Address
24	(18)	ADDRESS	4	IEAVXFR2LINKAGEPTR	Linkage Address

Table 341. Structure IEAVRPI2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVRPI2PARMLIST	
0	(0)	ADDRESS	4	IEAVRPI2RETURNCODEPTR	Return Code Address
4	(4)	ADDRESS	4	IEAVRPI2AUTHLEVELPTR	Auth Level Address
8	(8)	ADDRESS	4	IEAVRPI2PAUSEELEMENTTOKENPTR	Pause Element Token Address
12	(C)	ADDRESS	4	IEAVRPI2LINKAGEPTR	Linkage Address
16	(10)	ADDRESS	4	IEAVRPI2OWNERSTOKENPTR	PE owner's STOKEN Address
20	(14)	ADDRESS	4	IEAVRPI2CURRENTSTOKENPTR	Current space's STOKEN Address
24	(18)	ADDRESS	4	IEAVRPI2STATEPTR	Address of PE's state
28	(1C)	ADDRESS	4	IEAVRPI2RELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 342. Structure IEAVPME2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEAVPME2PARMLIST	
0	(0)	ADDRESS	4	IEAVPME2RETURNCODEPTR	
4	(4)	ADDRESS	4	IEAVPME2PETLISTPTR	
8	(8)	ADDRESS	4	IEAVPME2UPDATEDPETLISTPTR	
12	(C)	ADDRESS	4	IEAVPME2RELEASECODELISTPTR	
16	(10)	ADDRESS	4	IEAVPME2NUMBEROFPETSPTR	
20	(14)	ADDRESS	4	IEAVPME2NUMBEROFPESTORELEASEPTR	
24	(18)	ADDRESS	4	IEAVPME2LINKAGEPTR	
28	(1C)	ADDRESS	4	IEAVPME2WORKAREAPTR	

Table 343. Structure IEA\_PM\_RELEASECODELIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA_PM_RELEASECODELIST	
0	(0)	BITSTRING	1	IEA_PM_RELEASECODEBYTE0	
		.... ...1		IEA_PM_RELEASECODEINDICATOR	"X'01'" If the Pause multiple return code contains zero then this bit indicates whether the PET represented by this list entry has been Released. If so (the bit is on), then Iea_Pm_ReleaseCode contains the release code for the PET represented by this list entry
1	(1)	BITSTRING	3	IEA_PM_RELEASECODE	Release code

Table 344. Structure IEA4APEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4APEPARMLIST	
0	(0)	ADDRESS	8	IEA4APERRETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4APEAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4APEPAUSEELEMENTTOKENPTR	Pause Element Token Address

Table 345. Structure IEA4DPEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4DPEPARMLIST	
0	(0)	ADDRESS	8	IEA4DPERETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4DPEAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4DPEPAUSEELEMENTTOKENPTR	Pause Element Token Address

Table 346. Structure IEA4PSEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4PSEPARMLIST	
0	(0)	ADDRESS	8	IEA4PSERETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4PSEAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4PSECURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4PSEUPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
32	(20)	ADDRESS	8	IEA4PSERELEASECODE	Release Code Address Address

Table 347. Structure IEA4RLSPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4RLSPARMLIST	
0	(0)	ADDRESS	8	IEA4RLSRETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4RLSAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4RLSTARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4RLSTARGETDURELEASECODE	Release Code Address

Table 348. Structure IEA4XFRPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4XFRPARMLIST	
0	(0)	ADDRESS	8	IEA4XFRRETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4XFRAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4XFCURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4XFRUPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
32	(20)	ADDRESS	8	IEA4XFCURRENTDURELEASECODE	Release Code Address
40	(28)	ADDRESS	8	IEA4XFRTARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
48	(30)	ADDRESS	8	IEA4XFRTARGETDURELEASECODE	Release Code Address

Table 349. Structure IEA4RPIPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4RPIPARMLIST	
0	(0)	ADDRESS	8	IEA4RPIRETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4RPIAUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4RPIPAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4RPIAUTHORIZATIONPTR	PE creator's authority Address
32	(20)	ADDRESS	8	IEA4RPIOWNERPTR	PE owner's STOKEN Address
40	(28)	ADDRESS	8	IEA4RPISTATEPTR	Address of PE's state
48	(30)	ADDRESS	8	IEA4RPIRELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 350. Structure IEA4TPEPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4TPEPARMLIST	
0	(0)	ADDRESS	8	IEA4TPERRETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4TPEPAUSEELEMENTTOKENPTR	Pause Element Token Address
16	(10)	ADDRESS	8	IEA4TPESTATEPTR	Address of PE's state
24	(18)	ADDRESS	8	IEA4TPERELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 351. Structure IEA4APE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4APE2PARMLIST	
0	(0)	ADDRESS	8	IEA4APE2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4APE2AUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4APE2PAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4APE2PEOWNERSTOKENPTR	Pause Element Owner Stoken Address
32	(20)	ADDRESS	8	IEA4APE2OWNERTERMRELEASECODEPTR	Owner Termination Release Code Address
40	(28)	ADDRESS	8	IEA4APE2LINKAGEPTR	Linkage Address

Table 352. Structure IEA4DPE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4DPE2PARMLIST	
0	(0)	ADDRESS	8	IEA4DPE2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4DPE2PAUSEELEMENTTOKENPTR	Pause Element Token Address
16	(10)	ADDRESS	8	IEA4DPE2LINKAGEPTR	Linkage Address

Table 353. Structure IEA4PSE2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4PSE2PARMLIST	



Table 353. Structure IEA4PSE2PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	ADDRESS	8	IEA4PSE2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4PSE2CURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
16	(10)	ADDRESS	8	IEA4PSE2UPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
24	(18)	ADDRESS	8	IEA4PSE2RELEASECODE	Release Code Address Address
32	(20)	ADDRESS	8	IEA4PSE2LINKAGEPTR	Linkage Address

Table 354. Structure IEA4RLS2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4RLS2PARMLIST	
0	(0)	ADDRESS	8	IEA4RLS2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4RLS1TARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
16	(10)	ADDRESS	8	IEA4RLS2TARGETDURELEASECODE	Release Code Address
24	(18)	ADDRESS	8	IEA4RLS2LINKAGEPTR	Linkage Address

Table 355. Structure IEA4XFR2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4XFR2PARMLIST	
0	(0)	ADDRESS	8	IEA4XFR2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4XFR2CURRENTDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
16	(10)	ADDRESS	8	IEA4XFR2UPDATEDPAUSEELEMENTTOKENPTR	Updated Pause Element Token Address
24	(18)	ADDRESS	8	IEA4XFR2CURRENTDURELEASECODE	Release Code Address
32	(20)	ADDRESS	8	IEA4XFR2TARGETDUPAUSEELEMENTTOKENPTR	Pause Element Token Address
40	(28)	ADDRESS	8	IEA4XFR2TARGETDURELEASECODE	Release Code Address
48	(30)	ADDRESS	8	IEA4XFR2LINKAGEPTR	Linkage Address

Table 356. Structure IEA4RPI2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4RPI2PARMLIST	
0	(0)	ADDRESS	8	IEA4RPI2RETURNCODEPTR	Return Code Address
8	(8)	ADDRESS	8	IEA4RPI2AUTHLEVELPTR	Auth Level Address
16	(10)	ADDRESS	8	IEA4RPI2PAUSEELEMENTTOKENPTR	Pause Element Token Address
24	(18)	ADDRESS	8	IEA4RPI2LINKAGEPTR	Linkage Address
32	(20)	ADDRESS	8	IEA4RPI2OWNERSTOKENPTR	PE owner's STOKEN Address
40	(28)	ADDRESS	8	IEA4RPI2CURRENTSTOKENPTR	Current space's STOKEN Address

Table 356. Structure IEA4RPI2PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	ADDRESS	8	IEA4RPI2STATEPTR	Address of PE's state
56	(38)	ADDRESS	8	IEA4RPI2RELEASECODEPTR	Address of PE's release code if state is Released or Prereleased

Table 357. Structure IEA4PME2PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEA4PME2PARMLIST	
0	(0)	ADDRESS	8	IEA4PME2RETURNCODEPTR	
8	(8)	ADDRESS	8	IEA4PME2PETLISTPTR	
16	(10)	ADDRESS	8	IEA4PME2UPDATEDPETLISTPTR	
24	(18)	ADDRESS	8	IEA4PME2RELEASECODELISTPTR	
32	(20)	ADDRESS	8	IEA4PME2NUMBEROFPESTPTR	
40	(28)	ADDRESS	8	IEA4PME2NUMBEROFPESTORERELEASEPTR	
48	(30)	ADDRESS	8	IEA4PME2LINKAGEPTR	
56	(38)	ADDRESS	8	IEA4PME2WORKAREAPTR	

Table 358. Cross Reference for IEAASM

Name	Offset	Hex	Tag
IEA_PM_RELEASECODE	1		
IEA_PM_RELEASECODEBYTE0	0		
IEA_PM_RELEASECODEINDICATOR	0		1
IEA_PM_RELEASECODELIST	0		
IEA_VAPE_AUTHLEVELPTR	4		
IEA_VAPE_PARMLIST	0		
IEA_VAPE_PAUSEELEMENTTOKENPTR	8		
IEA_VAPE_RETURNCODEPTR	0		
IEA_VAPE2_AUTHLEVELPTR	4		
IEA_VAPE2_LINKAGEPTR	14		
IEA_VAPE2_OWNERTERMRELEASECODEPTR	10		
IEA_VAPE2_PARMLIST	0		
IEA_VAPE2_PAUSEELEMENTTOKENPTR	8		
IEA_VAPE2_PEOwnerSTOKENPTR	C		
IEA_VAPE2_RETURNCODEPTR	0		
IEA_VDPE_AUTHLEVELPTR	4		
IEA_VDPE_PARMLIST	0		
IEA_VDPE_PAUSEELEMENTTOKENPTR	8		
IEA_VDPE_RETURNCODEPTR	0		
IEA_VDPE2_LINKAGEPTR	8		
IEA_VDPE2_PARMLIST	0		
IEA_VDPE2_PAUSEELEMENTTOKENPTR	4		
IEA_VDPE2_RETURNCODEPTR	0		

Table 358. Cross Reference for IEAASM (continued)

Name	Offset	Hex Tag
IEAVPME2LINKAGEPTR	18	
IEAVPME2NUMBEROFPESTORELEASEPTR	14	
IEAVPME2NUMBEROFPETSPTR	10	
IEAVPME2PARMLIST	0	
IEAVPME2PETLISTPTR	4	
IEAVPME2RELEASECODELISTPTR	C	
IEAVPME2RETURNCODEPTR	0	
IEAVPME2UPDATEDPETLISTPTR	8	
IEAVPME2WORKAREAPTR	1C	
IEAVPSEAUTHLEVELPTR	4	
IEAVPSECURRENTDUPAUSEELEMENTTOKENPTR	8	
IEAVPSEPARMLIST	0	
IEAVPSERELEASECODE	10	
IEAVPSERRETURNCODEPTR	0	
IEAVPSEUPDATEDPAUSEELEMENTTOKENPTR	C	
IEAVPSE2CURRENTDUPAUSEELEMENTTOKENPTR	4	
IEAVPSE2LINKAGEPTR	10	
IEAVPSE2PARMLIST	0	
IEAVPSE2RELEASECODE	C	
IEAVPSE2RETURNCODEPTR	0	
IEAVPSE2UPDATEDPAUSEELEMENTTOKENPTR	8	
IEAVRLSAUTHLEVELPTR	4	
IEAVRLSPARMLIST	0	
IEAVRLSRETURNCODEPTR	0	
IEAVRLSTARGETDUPAUSEELEMENTTOKENPTR	8	
IEAVRLSTARGETDURELEASECODE	C	
IEAVRLS1TARGETDUPAUSEELEMENTTOKENPTR	4	
IEAVRLS2LINKAGEPTR	C	
IEAVRLS2PARMLIST	0	
IEAVRLS2RETURNCODEPTR	0	
IEAVRLS2TARGETDURELEASECODE	8	
IEAVRPIAUTHLEVELPTR	4	
IEAVRPIAUTHORIZATIONPTR	C	
IEAVRPIOWNERPTR	10	
IEAVRPIPARMLIST	0	
IEAVRPIPAUSEELEMENTTOKENPTR	8	
IEAVRPIRELEASECODEPTR	18	
IEAVRPIRETURNCODEPTR	0	
IEAVRPISTATEPTR	14	

Table 358. Cross Reference for IEAASM (continued)

Name	Offset	Hex Tag
IEAVRPI2AUTHLEVELPTR	4	
IEAVRPI2CURRENTSTOKENPTR	14	
IEAVRPI2LINKAGEPTR	C	
IEAVRPI2OWNERSTOKENPTR	10	
IEAVRPI2PARMLIST	0	
IEAVRPI2PAUSEELEMENTTOKENPTR	8	
IEAVRPI2RELEASECODEPTR	1C	
IEAVRPI2RETURNCODEPTR	0	
IEAVRPI2STATEPTR	18	
IEAVTPEPARMLIST	0	
IEAVTPEPAUSEELEMENTTOKENPTR	4	
IEAVTPERELEASECODEPTR	C	
IEAVTPERRETURNCODEPTR	0	
IEAVTPESTATEPTR	8	
IEAVXFRAUTHLEVELPTR	4	
IEAVXFRCURRENTDUPAUSEELEMENTTOKENPTR	8	
IEAVXFRCURRENTDURELEASECODE	10	
IEAVXFRPARMLIST	0	
IEAVXFRRETURNCODEPTR	0	
IEAVXFRTARGETDUPAUSEELEMENTTOKENPTR	14	
IEAVXFRTARGETDURELEASECODE	18	
IEAVXFRUPDATEDPAUSEELEMENTTOKENPTR	C	
IEAVXFR2CURRENTDUPAUSEELEMENTTOKENPTR	4	
IEAVXFR2CURRENTDURELEASECODE	C	
IEAVXFR2LINKAGEPTR	18	
IEAVXFR2PARMLIST	0	
IEAVXFR2RETURNCODEPTR	0	
IEAVXFR2TARGETDUPAUSEELEMENTTOKENPTR	10	
IEAVXFR2TARGETDURELEASECODE	14	
IEAVXFR2UPDATEDPAUSEELEMENTTOKENPTR	8	
IEA4APEAUTHLEVELPTR	8	
IEA4APEPARMLIST	0	
IEA4APEPAUSEELEMENTTOKENPTR	10	
IEA4APERRETURNCODEPTR	0	
IEA4APE2AUTHLEVELPTR	8	
IEA4APE2LINKAGEPTR	28	
IEA4APE2OWNERTERMRELEASECODEPTR	20	
IEA4APE2PARMLIST	0	
IEA4APE2PAUSEELEMENTTOKENPTR	10	

Table 358. Cross Reference for IEAASM (continued)

Name	Offset	Hex Tag
IEA4APE2PEOWNERSTOKENPTR	18	
IEA4APE2RETURNCODEPTR	0	
IEA4DPEAUTHLEVELPTR	8	
IEA4DPEPARMLIST	0	
IEA4DPEPAUSEELEMENTTOKENPTR	10	
IEA4DPERRETURNCODEPTR	0	
IEA4DPE2LINKAGEPTR	10	
IEA4DPE2PARMLIST	0	
IEA4DPE2PAUSEELEMENTTOKENPTR	8	
IEA4DPE2RETURNCODEPTR	0	
IEA4PME2LINKAGEPTR	30	
IEA4PME2NUMBEROFPESTORELEASEPTR	28	
IEA4PME2NUMBEROFPETSPTR	20	
IEA4PME2PARMLIST	0	
IEA4PME2PETLISTPTR	8	
IEA4PME2RELEASECODELISTPTR	18	
IEA4PME2RETURNCODEPTR	0	
IEA4PME2UPDATEDPETLISTPTR	10	
IEA4PME2WORKAREAPTR	38	
IEA4PSEAUTHLEVELPTR	8	
IEA4PSECURRENTDUPAUSEELEMENTTOKENPTR	10	
IEA4PSEPARMLIST	0	
IEA4PSERRELEASECODE	20	
IEA4PSERRETURNCODEPTR	0	
IEA4PSEUPDATEDPAUSEELEMENTTOKENPTR	18	
IEA4PSE2CURRENTDUPAUSEELEMENTTOKENPTR	8	
IEA4PSE2LINKAGEPTR	20	
IEA4PSE2PARMLIST	0	
IEA4PSE2RELEASECODE	18	
IEA4PSE2RETURNCODEPTR	0	
IEA4PSE2UPDATEDPAUSEELEMENTTOKENPTR	10	
IEA4RLSAUTHLEVELPTR	8	
IEA4RLSPARMLIST	0	
IEA4RLSRETURNCODEPTR	0	
IEA4RLSTARGETDUPAUSEELEMENTTOKENPTR	10	
IEA4RLSTARGETDURELEASECODE	18	
IEA4RLS1TARGETDUPAUSEELEMENTTOKENPTR	8	
IEA4RLS2LINKAGEPTR	18	
IEA4RLS2PARMLIST	0	

Table 358. Cross Reference for IEAASM (continued)

Name	Offset	Hex Tag
IEA4RLS2RETURNCODEPTR	0	
IEA4RLS2TARGETDURELEASECODE	10	
IEA4RPIAUTHLEVELPTR	8	
IEA4RPIAUTHORIZATIONPTR	18	
IEA4RPIOWNERPTR	20	
IEA4RPIPARMLIST	0	
IEA4RPIPAUSEELEMENTTOKENPTR	10	
IEA4RPIRELEASECODEPTR	30	
IEA4RPIRETURNCODEPTR	0	
IEA4RPISTATEPTR	28	
IEA4RPI2AUTHLEVELPTR	8	
IEA4RPI2CURRENTSTOKENPTR	28	
IEA4RPI2LINKAGEPTR	18	
IEA4RPI2OWNERSTOKENPTR	20	
IEA4RPI2PARMLIST	0	
IEA4RPI2PAUSEELEMENTTOKENPTR	10	
IEA4RPI2RELEASECODEPTR	38	
IEA4RPI2RETURNCODEPTR	0	
IEA4RPI2STATEPTR	30	
IEA4TPEPARMLIST	0	
IEA4TPEPAUSEELEMENTTOKENPTR	8	
IEA4TPERELEASECODEPTR	18	
IEA4TPERRETURNCODEPTR	0	
IEA4TPESTATEPTR	10	
IEA4XFRAUTHLEVELPTR	8	
IEA4XFRCURRENTDUPAUSEELEMENTTOKENPTR	10	
IEA4XFRCURRENTDURELEASECODE	20	
IEA4XFRPARMLIST	0	
IEA4XFRRETURNCODEPTR	0	
IEA4XFRTARGETDUPAUSEELEMENTTOKENPTR	28	
IEA4XFRTARGETDURELEASECODE	30	
IEA4XFRUPDATEDPAUSEELEMENTTOKENPTR	18	
IEA4XFR2CURRENTDUPAUSEELEMENTTOKENPTR	8	
IEA4XFR2CURRENTDURELEASECODE	18	
IEA4XFR2LINKAGEPTR	30	
IEA4XFR2PARMLIST	0	
IEA4XFR2RETURNCODEPTR	0	
IEA4XFR2TARGETDUPAUSEELEMENTTOKENPTR	20	
IEA4XFR2TARGETDURELEASECODE	28	

Table 358. Cross Reference for IEAASM (continued)

Name	Offset	Hex Tag
IEA4XFR2UPDATEDPAUSEELEMENTTOKENPTR	10	

## IEAMSYMP information

### IEAMSYMP programming interface information

IEAMSYMP is a programming interface.

### IEAMSYMP heading information

<b>Common name:</b>	Static Symbol Service Parameter List
<b>Macro ID:</b>	IEAMSYMP
<b>DSECT name:</b>	Caller supplied
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	SYMP Offset: 0 Length: 4
<b>Storage attributes:</b>	Residency: At direction of caller
<b>Size:</b>	128 bytes
<b>Created by:</b>	Caller
<b>Pointed to by:</b>	Invocation dependant
<b>Serialization:</b>	None
<b>Function:</b>	IEAMSYMP contains the mapping of the parameters used for communication between IPCS exits and the Static Symbol Service Parameter List.

### IEAMSYMP mapping

Table 359. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'80'	0	BIT0	"128"
0	(0)	X'40'	0	BIT1	"64"
0	(0)	X'20'	0	BIT2	"32"
0	(0)	X'10'	0	BIT3	"16"
0	(0)	X'8'	0	BIT4	"8"
0	(0)	X'4'	0	BIT5	"4"
0	(0)	X'2'	0	BIT6	"2"
0	(0)	X'1'	0	BIT7	"1"

Table 360. Structure SYMP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SYMP	, IPCS name service parameter list

Table 360. Structure SYMP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	1	SYMP000(0)	Begin IEAMSYMP
0	(0)	CHARACTER	6	SYMPID(0)	Static Symbol service parameter identifier
0	(0)	CHARACTER	4	SYMPIDC	SYMP acronym
4	(4)	CHARACTER	1	SYMPIDL	SYMP level indicator Set to '2' if using SYMBOL16 / SUBTEXT44.
5	(5)	CHARACTER	1		Reserved
6	(6)	CHARACTER	2		Reserved
8	(8)	CHARACTER	8	SYMPMODN	The name of the module requesting the service
16	(10)	CHARACTER	8	SYMPSYMBOL	The input SYMBOL to be translated. Used when IDL is "1".
24	(18)	CHARACTER	12		Reserved
16	(10)	CHARACTER	16	SYMPSYMBOL16	The 16-byte symbol Used when IDL is "2".
36	(24)	BITSTRING	2	SYMPFLG(0)	Processing flags
36	(24)	BITSTRING	1	SYMPFL1	First byte of flags (input)
		1... ....		SYMPFNOT	"BIT0" No output requested Set by caller, not housekept
37	(25)	BITSTRING	1	SYMPFL2	Second byte of flags (output)
		1... ....		SYMPSYMBOLNOTFOUND	"BIT0" Requested Symbol not found
		.1... ....		SYMPSYSTEMDEFINED	"BIT1" System defined symbol
		..1. ....		SYMPMISSINGSTORAGE	"BIT2" Missing storage
		...1 ....		SYMPLOGICALERROR	"BIT3" Logical Error In Data
38	(26)	CHARACTER	10	SYMPSUBTEXT	The output Subtext. Used when IDL is "1".
48	(30)	CHARACTER	12		Reserved
60	(3C)	SIGNED	4	SYMPSUBTEXTLENGTH	Length of Subtext
64	(40)	SIGNED	4	SYMPSYMBOLNUMBER	Position of symbol in Table
68	(44)	SIGNED	4	SYMPTOTALSYMBOLS	Total number of symbols in Table
72	(48)	ADDRESS	4	SYMPRBAD	Reference Block Address
76	(4C)	BITSTRING	44	SYMPSUBTEXT44	The output Subtext. Used when IDL is "2".
120	(78)	BITSTRING	8		Reserved
128	(80)	CHARACTER	1	SYMP999(0)	End IEAMSYMP

Table 361. Cross Reference for IEAMSYMP

Name	Offset	Hex Tag
BIT0	0	80
BIT1	0	40
BIT2	0	20
BIT3	0	10
BIT4	0	8
BIT5	0	4
BIT6	0	2
BIT7	0	1
SYMP	0	



Table 361. Cross Reference for IEAMSYMP (continued)

Name	Offset	Hex Tag
SYMPFN0T	24	80
SYMPID	0	
SYMPIDC	0	E2E8D4D7
SYMPIDL	4	F1
SYMPLOGICALERROR	25	10
SYMPMISSINGSTORAGE	25	20
SYMPMODN	8	40404040
SYMP PFLG	24	
SYMP PFL1	24	0
SYMP PFL2	25	0
SYMPRBAD	48	
SYMP SUBTEXT	26	40404040
SYMP SUBTEXTLENGTH	3C	0
SYMP SUBTEXT44	4C	0
SYMP SYMBOL	10	40404040
SYMP SYMBOLNOTFOUND	25	80
SYMP SYMBOLNUMBER	40	0
SYMP SYMBOL16	10	40404040
SYMP SYSTEMDEFINED	25	40
SYMP TOTALSYMBOLS	44	0
SYMP000	0	
SYMP999	80	

## IEANTASM information

### IEANTASM programming interface information

IEANTASM is a programming interface.

### IEANTASM heading information

<b>Common name:</b>	Name/Token Service Assembler Declares
<b>Macro ID:</b>	IEANTASM
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A

**Storage attributes:** Main Storage: N/A  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: N/A  
Key: N/A  
Data Space: N/A  
Residency: N/A

**Size:** N/A

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** N/A

**Function:** IEANTASM defines types, related constants, and external entry declarations for the use of Name Token/Services from 390 Assembly Language

## IEANTASM mapping

Table 362. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
Fixed Service Parameter and Return Code Defines Name/Token Level Constants					
0	(0)	X'1'	0	IEANT_TASK_LEVEL	"1"
0	(0)	X'2'	0	IEANT_HOME_LEVEL	"2"
0	(0)	X'3'	0	IEANT_PRIMARY_LEVEL	"3"
0	(0)	X'4'	0	IEANT_SYSTEM_LEVEL	"4"
0	(0)	X'B'	0	IEANT_TASKAUTH_LEVEL	"11"
0	(0)	X'C'	0	IEANT_HOMEAUTH_LEVEL	"12"
0	(0)	X'D'	0	IEANT_PRIMARYAUTH_LEVEL	"13"
Name/Token Persistence					
0	(0)	X'0'	0	IEANT_NOPERSIST	"0"
0	(0)	X'1'	0	IEANT_PERSIST	"1"
Name/Token Checkpoint					
0	(0)	X'0'	0	IEANT_NOCHECKPOINT	"0"
0	(0)	X'2'	0	IEANT_CHECKPOINTOK	"2"
Service Return Codes					
0	(0)	X'0'	0	IEANT_OK	"0"
0	(0)	X'4'	0	IEANT_DUP_NAME	"4"
0	(0)	X'4'	0	IEANT_NOT_FOUND	"4"
0	(0)	X'8'	0	IEANT_24BITMODE	"8"
0	(0)	X'10'	0	IEANT_NOT_AUTH	"16"
0	(0)	X'14'	0	IEANT_SRB_MODE	"20"
0	(0)	X'18'	0	IEANT_LOCK_HELD	"24"
0	(0)	X'1C'	0	IEANT_LEVEL_INVALID	"28"

Table 362. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'20'	0	IEANT_NAME_INVALID	"32"
0	(0)	X'24'	0	IEANT_PERSIST_INVALID	"36"
0	(0)	X'28'	0	IEANT_AR_INVALID	"40"
0	(0)	X'2C'	0	IEANT_NOT_AMODE64	"44"
0	(0)	X'40'	0	IEANT_UNEXPECTED_ERR	"64"

End of Name/Token Services Include

Table 363. Cross Reference for IEANTASM

Name	Offset	Hex Tag
IEANT_AR_INVALID	0	28
IEANT_CHECKPOINTOK	0	2
IEANT_DUP_NAME	0	4
IEANT_HOME_LEVEL	0	2
IEANT_HOMEAUTH_LEVEL	0	C
IEANT_LEVEL_INVALID	0	1C
IEANT_LOCK_HELD	0	18
IEANT_NAME_INVALID	0	20
IEANT_NOCHECKPOINT	0	0
IEANT_NOPERSIST	0	0
IEANT_NOT_AMODE64	0	2C
IEANT_NOT_AUTH	0	10
IEANT_NOT_FOUND	0	4
IEANT_OK	0	0
IEANT_PERSIST	0	1
IEANT_PERSIST_INVALID	0	24
IEANT_PRIMARY_LEVEL	0	3
IEANT_PRIMARYAUTH_LEVEL	0	D
IEANT_SRB_MODE	0	14
IEANT_SYSTEM_LEVEL	0	4
IEANT_TASK_LEVEL	0	1
IEANT_TASKAUTH_LEVEL	0	B
IEANT_UNEXPECTED_ERR	0	40
IEANT_24BITMODE	0	8

## IECDPIRL information

### IECDPIRL programming interface information

**ONLY** the following fields are part of the programming interface information:

- PIRCNT

- PIRDVRU
- PIROPT
- PIRRSTR

## IECDPIRL heading information

<b>Common name:</b>	Purge I/O Restore List
<b>Macro ID:</b>	IECDPIRL
<b>DSECT name:</b>	PIRL
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	'PRL' Offset: PIRLTAIL +0 Length: 3
<b>Storage attributes:</b>	Subpool: 254 Key: 0 Residency: Below 16M
<b>Size:</b>	Variable. Depends on the number of entries. PIRL -- X'000C' bytes PIRLHEAD -- X'0004' bytes PIRLENT -- X'0008' bytes per entry PIRLTAIL -- X'000C' bytes
<b>Created by:</b>	IOS Purge Processing
<b>Pointed to by:</b>	IPIBPIRL field of the IPIB DEBUSRPG field of the IEZDEB data area. ASXBPIRL field of the ASXB data area. PIRLNEXT field of the PIRL data area.
<b>Serialization:</b>	Local Lock
<b>Function:</b>	Describes the purged I/O restore list used by the I/O purge services. For use with EXCP.

## IECDPIRL mapping

Table 364. Structure PIRL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PIRL	
0	(0)	CHARACTER	4	PIRLHEAD(0)	Header
0	(0)	BITSTRING	1	PIROPT	Restore option byte
1	(1)	BITSTRING	1	PIRCNT	Number of PIRRSTR entries
2	(2)	BITSTRING	1	PIRFLAGS(0)	Flag byte
		1... ....		PIRAUTHIO	"X'80'" When '1'b indicates that an authorized request has been placed on the request list
3	(3)	BITSTRING	1		Reserved - must be 0
4	(4)	CHARACTER	8	PIRLENT(0)	PIRL entries. PIRCNT contains the number of entries
4	(4)	ADDRESS	4	PIRRSTR	Pointer to I/O Request list for each IOS driver

Table 364. Structure PIRL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	ADDRESS	4	PIRDVRU	Pointer to additional information the driver maintains to insure the proper restoration of its queue of requests (E.G. protect keys, TCB addresses, etc )
12	(C)	CHARACTER	1	PIREND(0)	End of PIRL
12	(C)	X'C'	0	PIRL_LEN	"*-PIRL"

Table 365. Structure PIRLTAIL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PIRLTAIL	PIRL tail
0	(0)	CHARACTER	3	PIRLEYE	Eyecatcher
3	(3)	BITSTRING	1	PIRLTCNT	Copy of PRLCNT
4	(4)	ADDRESS	4	PIRLNEXT	Pointer to next PIRL on the queue
8	(8)	ADDRESS	4	PIRLTCB	Task associated with this PIRL
PIROPT bit definitions					
		1... ....		PIROTCB	"X'80'" Restore request to the originating TCB instead of the restoring TCB
		.1... ....		PIRSUPCK	"X'40'" Do TCB validity check regardless of the state of the caller
PIRL Constants					
8	(8)	X'D7D9D3'	0	PIRLEYEC	"C'PRL'" Eyecatcher for PIRLEYE
8	(8)	X'8'	0	PIRENTL	"8" Length of a PIRL entry
8	(8)	X'C'	0	PIRLTAIL_LEN	"*-PIRLTAIL"

Table 366. Cross Reference for IECDPIRL

Name	Offset	Hex	Tag
PIRAUTHIO	2		80
PIRCNT	1		
PIRDVRU	8		
PIREND	C		
PIRENTL	8		8
PIRFLAGS	2		
PIRL	0		
PIRL_LEN	C		C
PIRLCNT	4		
PIRLEYE	0		
PIRLEYEC	8		D7D9D3
PIRLHEAD	0		
PIRLNEXT	4		
PIRLTAIL	0		
PIRLTAIL_LEN	8		C

Table 366. Cross Reference for IECDPIRL (continued)

Name	Offset	Hex Tag
PIRLTCB	8	
PIRLTCNT	3	
PIROPT	0	
PIROTCB	8	80
PIRRSTR	4	
PIRSUPCK	8	40

## IECDPPL information

### IECDPPL programming interface information

IECDPPL is a programming interface.

### IECDPPL heading information

<b>Common name:</b>	Purge Parameter List
<b>Macro ID:</b>	IECDPPL
<b>DSECT name:</b>	PPL
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Caller Key: Key of Caller Residency: Above or Below
<b>Size:</b>	16 bytes
<b>Created by:</b>	Issuers of the PURGE macro
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	This DSECT describes the control block containing all the information necessary to do I/O purging (both halt and quiesce requests).

### IECDPPL mapping

Table 367. Structure PPL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PPL	
0	(0)	SIGNED	4	PPLDSID(0)	SAME COMMENTS AS PPLDSIDA
0	(0)	BITSTRING	1	PPOPT1	OPTION BYTE ONE
		1... ....		PPLDS	"X'80'" IF DSID PURGE REQUESTED (BIT 6), PURGE A SINGLE DSID (SEE PPLDSID). IF ZERO, DSID LIST PURGE.
		.1... ....		PPLPOST	"X'40'" ECBS ASSOCIATED WITH THE I/O REQUESTS PURGED SHOULD BE POSTED WITH X'48'

Table 367. Structure PPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		PPLHIO	"X'20'" HALT THE I/O REQUESTS AND DO NOT BUILD A PIRL.
		...1 ....		PPLREL	"X'10'" PURGE ONLY THE I/O REQUESTS MARKED RELATED AND ASSOC WITH THE ARGUMENT
		.... 1...		PPLNPPL	"X'08'" INDICATOR THAT NEW PPL IS BEING USED AND THUS SHOULD BE ZERO
		.... .1..		PPLRB	"X'04'" DO NOT PURGE THE RB CHAIN FOR ASYNCHRONOUSLY SCHEDULED ROUTINES
		.... ..1.		PPLTASK	"X'02'" IF ASID PURGE IS NOT SPECIFIED PURGE A SINGLE TCB
		.... ...1		PPLEXR	"X'01'" OPTION BYTE 2 IS PRESENT AND CONTAINS VALID INFORMATION
1	(1)	ADDRESS	3	PPLDSIDA	3 BYTE POINTER TO DSID ARG. IT MUST POINT TO A CONTROL BLOCK THAT HAS THE FOLLOWING FIELDS: MINUS 2 - TWO BYTE DSID VALID- ITY INDEX PLUS 5 - THREE BYTE ADDRESS OF NEXT DSID OR ZERO
4	(4)	SIGNED	4	PPLTCB(0)	ADDRESS OF TCB TO BE USED TO FIND THE I/O REQUESTS IF NO SUPPLIED, THE CURRENT TCB ADDRESS WILL BE USED.
4	(4)	BITSTRING	1	PPLCC	PURGE COMPLETION CODE '7F' SUCCESSFUL COMPLETION '40' UNSUCCESSFUL COMPLETION SEE REG 15 FOR DETAILS NOTE: ALWAYS '7F' IF PPLEXR=0.
5	(5)	ADDRESS	3	PPLTCBA	SEE DESCRIPTION FOR PPLTCB USED TO FIND THE I/O REQUESTS IF NOT SUPPLIED, THE CURRENT TCB ADDRESS WILL BE USED.
8	(8)	SIGNED	4	PPLPIRL(0)	3 BYTE ADDRESS OF THE ANCHOR FROM WHICH THE PURGED I/O RE- QUEST LIST WILL BE CHAINED.
8	(8)	BITSTRING	1	PPLDVRIID	DRIVER ID -- REQUIRED DCRR 21082 FOR DSID PURGE REQUESTS DCRR 21082 DEFAULT VALUE OF X'00' DCRR 21082 IMPLIES EXCP IS OWNER DCRR 21082
9	(9)	ADDRESS	3	PPLPIRLA	SEE DESCRIPTION FOR PPLPIRL
12	(C)	BITSTRING	1	PPLOPT2	OPTION BYTE 2. OPTIONALLY PRESENT DEPENDING ON BIT 7 OF OPTION BYTE 1.
		1... ....		PPLCAN	"X'80'" CANCEL COMMAND REQUEST
		.1.. ....		PPLSTAUT	"X'40'" Indicates if an authorized purge caller is executing on behalf of a program that may be running authorized ('1'b) or unauthorized ('0'b)
		..1. ....		PPLMEM	"X'20'" ASID PURGE SPECIFIED. THIS OPTION MAY BE SPECIFIED ONLY BY A REQUESTOR THAT IS IN SUPERVISOR STATE.
		...1 ....		PPLVC	"X'10'" BYPASS VALIDITY CHECK 0 - BYPASS VALIDITY CHECK - SUPERVISOR STATE ONLY 1 - VALIDITY CHECK
		.... 1...		PPLTCB	"X'08'" PURGE ALL REQUESTS SO THAT WHEN RESTORED THEY CAN BE ASSOCIATED WITH THE TCB THAT ORIGINATED THEM.
		.... .1..		PPLTSKM	"X'04'" PURGE CALLED BY TASK TERMINATION. IF QUIESCE OPTION AND ANY I/O REQUESTS ENCOUNTERED, PURGE WILL NOT ISSUE WAIT.
		.... ..1.		PPLBSS	"X'02'" BYPASS STATUS START SRB - VALID ONLY FOR RCT CALL FOR MEMORY SWAP

Table 367. Structure PPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		PPLUCB	"X'01'" PURGE DSID BY UCB ONLY WHEN THIS BIT IS ON ONLY REQUESTS FOR SPECIFIED UCB WILL BE PURGED.
13	(D)	BITSTRING	1		RESERVED AND SHOULD BE ZERO
14	(E)	SIGNED	2	PPLASID(0)	ASID OF ADDRESS SPACE TO WHICH I/O REQUESTS ARE ASSOCIATED.
14	(E)	SIGNED	2	PPLOFSET	OFFSET OF UCB WITHIN THE DEB FOR PURGE BY UCB ONLY.

Table 368. Cross Reference for IECDPPL

Name	Offset	Hex	Tag
PPL	0		
PPLASID	E		
PPLBSS	C		2
PPLCAN	C		80
PPLCC	4		
PPLDS	0		80
PPLDSID	0		
PPLDSIDA	1		
PPLDVRID	8		
PPLEXR	0		1
PPLHIO	0		20
PPLMEM	C		20
PPLNPPL	0		8
PPLOFSET	E		
PPLOPT1	0		
PPLOPT2	C		
PPLOTCB	C		8
PPLPIRL	8		
PPLPIRLA	9		
PPLPOST	0		40
PPLRB	0		4
PPLREL	0		10
PPLSTAUT	C		40
PPLTASK	0		2
PPLTCB	4		
PPLTCBA	5		
PPLTSKM	C		4
PPLUCB	C		1
PPLVC	C		10



# IECDRQEX information

## IECDRQEX heading information

<b>Common name:</b>	RQEX - EXCP Request Queue Element Extension
<b>Macro ID:</b>	IECDRQEX
<b>DSECT name:</b>	RQEX
<b>Owning component:</b>	Execute Channel Program Processor (SC1C6)
<b>Eye-catcher ID:</b>	RQEX Offset: 0 Length: 4
<b>Storage attributes:</b>	Key: 0
<b>Size:</b>	40 bytes
<b>Created by:</b>	IECVEXCP
<b>Pointed to by:</b>	User defined
<b>Serialization:</b>	None
<b>Function:</b>	This DSECT describes the control block used as an extension to the request queue element (RQE). With the RQE, this control block contains all the information necessary to initiate and terminate I/O requests within the EXCP processor.

## IECDRQEX mapping

Table 369. Structure RQEX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	40	RQEX	EXCP Request Queue Element Extension.
0	(0)	CHARACTER	4	RQEXID	Eye catcher RQEX.
4	(4)	UNSIGNED	1	RQEXVERN	Version number.
5	(5)	CHARACTER	3	*	Reserved.
8	(8)	ADDRESS	4	RQEXCPSE	Address of the channel program scan exit.
12	(C)	ADDRESS	4	RQEXXCPS	Address of the channel program scan exit data area (XCPS).
16	(10)	ADDRESS	4	RQEXFIX	Address of the fix list returned by the page fix appendage for EXCPVR requests. Valid only if RQEFIXST is on. If the high order bit is on, a page fix or page free is in progress.
	1... ..			RQEX_FIXFREE_INPROG	A page fix or page free request is in progress
20	(14)	UNSIGNED	4	RQEXTSV1	Temporary save area
24	(18)	CHARACTER	16	*	Reserved.

Table 370. Constants for IECDRQEX

Len	Type	Value	Name	Description
4	CHARACTER	RQEX	RQEXIDC	Eye catcher constant.
1	DECIMAL	1	RQEXVERC	Version number constant.
1	DECIMAL	40	RQEXLNTH	Length constant.

Table 371. Cross Reference for IECDRQEX

Name	Offset	Hex Tag
RQEX	0	
RQEX_FIXFREE_INPROG	10	80
RQEXCPSE	8	
RQEXFIX	10	
RQEXID	0	
RQEXTSV1	14	
RQEXVERN	4	
RQEXXCPS	C	

## IEDB information

### IEDB programming interface information

IEDB is a programming interface.

### IEDB heading information

<b>Common name:</b>	I/O Error Data Block
<b>Macro ID:</b>	IOSDIEDB
<b>DSECT name:</b>	IOSDIEDB
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IEDB Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: User Key: User Data Space: No Residency: Any
<b>Size:</b>	48 or 96 bytes
<b>Created by:</b>	Issuer of EXCP or STARTIO
<b>Pointed to by:</b>	IOBEIEDB for EXCP or STARTIO
<b>Serialization:</b>	None

**Function:**

The IEDB is an optional control block used by users of EXCP or of the I/O driver interface. EXCP uses this block to save error data related to an EXCP request. This data is obtained from the ERP Work Area (EWA).

I/O drivers may use this for the same reason, i.e., to save data from one exit to another even after the EWA has been freed. However, like EXCP, the I/O driver's normal or abnormal exit is expected to set the data in this field from the EWA. IOS does not provide this data for the user.

The IEDB can be either 48 or 96 bytes in length. If a 48 byte IEDB is provided, the version number must be set to one (IEDBVRS1). If a 96 byte IEDB is provided, the version number must be set to two (IEDBVRS2).

**IEDB mapping**

Table 372. Structure IEDB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IEDB	I/O Error Data Block
0	(0)	CHARACTER	4	IEDBID	Eye catcher. Must be IEDB.
4	(4)	BITSTRING	1	IEDBVRS	Version number.
5	(5)	BITSTRING	1	IEDBFLG1	Flags field.
		1... ....		IEDBBDNS	"X'80'" The sense data was determined to be invalid and contains '10FE'x.
		.1.. ....		IEDBFSAV	"X'40'" The failing storage address in IEDBFSA is valid
		EQU X'20' Reserved			
		EQU X'10' Reserved			
		EQU X'08' Reserved			
		EQU X'04' Reserved			
		EQU X'02' Reserved			
		EQU X'01' Reserved			
6	(6)	CHARACTER	1	IEDBCOD	I/O completion code field. This is the original completion code prior to EXCP changing it.
7	(7)	CHARACTER	1		Reserved.
8	(8)	CHARACTER	32	IEDBSNS(0)	Sense data.
8	(8)	CHARACTER	1	IEDBSN00	Sense byte 0.
9	(9)	CHARACTER	1	IEDBSN01	Sense byte 1.
10	(A)	CHARACTER	1	IEDBSN02	Sense byte 2.
11	(B)	CHARACTER	1	IEDBSN03	Sense byte 3.
12	(C)	CHARACTER	1	IEDBSN04	Sense byte 4.
13	(D)	CHARACTER	1	IEDBSN05	Sense byte 5.
14	(E)	CHARACTER	1	IEDBSN06	Sense byte 6.
15	(F)	CHARACTER	1	IEDBSN07	Sense byte 7.
16	(10)	CHARACTER	1	IEDBSN08	Sense byte 8.
17	(11)	CHARACTER	1	IEDBSN09	Sense byte 9.
18	(12)	CHARACTER	1	IEDBSN10	Sense byte 10.
19	(13)	CHARACTER	1	IEDBSN11	Sense byte 11.
20	(14)	CHARACTER	1	IEDBSN12	Sense byte 12.
21	(15)	CHARACTER	1	IEDBSN13	Sense byte 13.
22	(16)	CHARACTER	1	IEDBSN14	Sense byte 14.

Table 372. Structure IEDB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
23	(17)	CHARACTER	1	IEDBSN15	Sense byte 15.
24	(18)	CHARACTER	1	IEDBSN16	Sense byte 16.
25	(19)	CHARACTER	1	IEDBSN17	Sense byte 17.
26	(1A)	CHARACTER	1	IEDBSN18	Sense byte 18.
27	(1B)	CHARACTER	1	IEDBSN19	Sense byte 19.
28	(1C)	CHARACTER	1	IEDBSN20	Sense byte 20.
29	(1D)	CHARACTER	1	IEDBSN21	Sense byte 21.
30	(1E)	CHARACTER	1	IEDBSN22	Sense byte 22.
31	(1F)	CHARACTER	1	IEDBSN23	Sense byte 23.
32	(20)	CHARACTER	1	IEDBSN24	Sense byte 24.
33	(21)	CHARACTER	1	IEDBSN25	Sense byte 25.
34	(22)	CHARACTER	1	IEDBSN26	Sense byte 26.
35	(23)	CHARACTER	1	IEDBSN27	Sense byte 27.
36	(24)	CHARACTER	1	IEDBSN28	Sense byte 28.
37	(25)	CHARACTER	1	IEDBSN29	Sense byte 29.
38	(26)	CHARACTER	1	IEDBSN30	Sense byte 30.
39	(27)	CHARACTER	1	IEDBSN31	Sense byte 31.
40	(28)	CHARACTER	4		Reserved for future CSW expansion
44	(2C)	SIGNED	4	IEDB2CSW	If the I/O requestor allowed prefetching of CCWs and data (IOBEP/IOSP) and specified that it wants to see both the channel and CU ending CCW address for errors that occur when the CU executes ahead of the channel and the 2nd CCW address is valid, this field contains the virtual CCW address of the last CCW executed by the control unit
44	(2C)	X'30'	0	IEDBEND	"*" End of version 1 IEDB
44	(2C)	X'30'	0	IEDBLNTH	"IEDBEND-IEDB" Length of version 1 IEDB
48	(30)	SIGNED	4	IEDB2(0)	Start of version 2 IEDB
48	(30)	BITSTRING	8	IEDBFSA(0)	Failing storage address (FSA)
48	(30)	SIGNED	4	IEDBFSAH	High order word of FSA
52	(34)	SIGNED	4	IEDBFSAH	Low order word of FSA
56	(38)	BITSTRING	40	IEDB2RSV	Reserved
56	(38)	X'60'	0	IEDB2END	"*" End of version 2 IEDB
56	(38)	X'60'	0	IEDB2LEN	"IEDB2END-IEDB" Length of version 2 IEDB
56	(38)	X'1'	0	IEDBVRSC	"1" Version number 1
56	(38)	X'2'	0	IEDBVRS2	"2" Version number 2

Table 373. Cross Reference for IEDB

Name	Offset	Hex Tag
IEDB	0	
IEDBBDSN	5	80
IEDBCOD	6	
IEDBEND	2C	30
IEDBFLG1	5	

Table 373. Cross Reference for IEDB (continued)

Name	Offset	Hex Tag
IEDBFSA	30	
IEDBFSAH	30	
IEDBFSAI	34	
IEDBFSAV	5	40
IEDBID	0	
IEDBLNTH	2C	30
IEDBSNS	8	
IEDBSN00	8	
IEDBSN01	9	
IEDBSN02	A	
IEDBSN03	B	
IEDBSN04	C	
IEDBSN05	D	
IEDBSN06	E	
IEDBSN07	F	
IEDBSN08	10	
IEDBSN09	11	
IEDBSN10	12	
IEDBSN11	13	
IEDBSN12	14	
IEDBSN13	15	
IEDBSN14	16	
IEDBSN15	17	
IEDBSN16	18	
IEDBSN17	19	
IEDBSN18	1A	
IEDBSN19	1B	
IEDBSN20	1C	
IEDBSN21	1D	
IEDBSN22	1E	
IEDBSN23	1F	
IEDBSN24	20	
IEDBSN25	21	
IEDBSN26	22	
IEDBSN27	23	
IEDBSN28	24	
IEDBSN29	25	
IEDBSN30	26	
IEDBSN31	27	

Table 373. Cross Reference for IEDB (continued)

Name	Offset	Hex Tag
IEDBVERS	4	
IEDBVRSC	38	1
IEDBVRS2	38	2
IEDB2	30	
IEDB2CSW	2C	
IEDB2END	38	60
IEDB2LEN	38	60
IEDB2RSV	38	

## IEEMRCPT information

### IEEMRCPT programming interface information

IEEMRCPT is a programming interface.

### IEEMRCPT heading information

<b>Common name:</b>	Reconfiguration Pointer Table
<b>Macro ID:</b>	IEEMRCPT
<b>DSECT name:</b>	RCPT
<b>Owning component:</b>	MP reconfiguration (SC1CZ)
<b>Eye-catcher ID:</b>	RCPT Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245 Key: 0
<b>Size:</b>	832 bytes
<b>Created by:</b>	IEEVCPR
<b>Pointed to by:</b>	CSDRCPT field of the CSD data area.
<b>Serialization:</b>	None
<b>Function:</b>	Contains the addresses for the LCCA, LCCX and PCCA for each CPU configured offline by WLM.

### IEEMRCPT mapping

Table 374. Structure RCPT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RCPT	
0	(0)	CHARACTER	4	RCPTRCPT	Eye catcher RCPT
4	(4)	CHARACTER	60		Reserved
64	(40)	BITSTRING	1	RCPT_ARRAY(0)	Array of data associated with CPUs

Table 375. Structure RCPT\_VT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RCPT_VT	Addresses of LCCA, LCCX and PCCA for CPUs 1 to CVTMAXMP+1
0	(0)	ADDRESS	4	RCPT_LCCA	LCCA pointer
4	(4)	ADDRESS	4	RCPT_LCCX	LCCX pointer
8	(8)	ADDRESS	4	RCPT_PCCA	PCCA pointer

## IEESMCX information

### IEESMCX heading information

<b>Common name:</b>	SMF CONTROL TABLE EXTENSION
<b>Macro ID:</b>	IEESMCX
<b>DSECT name:</b>	SMCX
<b>Owning component:</b>	SYSTEM MANAGEMENT FACILITIES (SC100)
<b>Eye-catcher ID:</b>	"SMCX" Offset: 0 ('0' in hex) Length: 4 bytes
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above
<b>Size:</b>	128 bytes ('80' in hex) FREQUENCY = 1 per MVS system
<b>Created by:</b>	IFASTART
<b>Pointed to by:</b>	SMCASM CX
<b>Serialization:</b>	None
<b>Function:</b>	Extended communications area used to hold data by SMF or other MVS components

### IEESMCX mapping

Table 376. Structure SMCX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	344	SMCX	
0	(0)	CHARACTER	4	SMCXID	SMCX CONTROL BLOCK ID - "SMCX"
4	(4)	SIGNED	2	SMCXLVL	SMCX CONTROL BLOCK LEVEL INDICATOR
6	(6)	SIGNED	2	SMCXLEN	SMCX CONTROL BLOCK LENGTH
8	(8)	CHARACTER	8	SMCXINTV	GLOBAL INTERVAL VALUE (TOD FORMAT)
16	(10)	CHARACTER	8	SMCXSYNV	GLOBAL INTERVAL SYNC VALUE (TOD FORMAT)
24	(18)	CHARACTER	2	SMCXINTP	INTVAL PARM VALUE (CHARACTER FORMAT)
26	(1A)	CHARACTER	2	SMCXSYNP	SYNCVAL PARM VALUE (CHARACTER FORMAT)
28	(1C)	CHARACTER	8	SMCXINTE	TOD FORMAT OF THE NEXT SCHEDULED GLOBAL SYNCHED INTERVAL EXPIRATION

Table 376. Structure SMCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
36	(24)	ADDRESS	4	SMCXINTT	POINTER TO THE GLOBAL INTERVAL TQE
40	(28)	ADDRESS	4	SMCXENFP	POINTER TO ENF PARAMETER LIST AREA
44	(2C)	ADDRESS	4	SMCXDFRQ	ADDRESS OF THE DEFERRED INTERVAL STQE CHAIN
48	(30)	ADDRESS	4	SMCX824A	Address of IEEMB824
52	(34)	CHARACTER	4	SMCXBIT1	BIT INDICATOR MASK (WORD 1)
		1... ....		SMCXSPDB	SYNC PROCESSING DISABLED INDICATOR
		.1... ....		SMCXEXCP	SUPPRESS EMPTY EXCP FLAG
		..1. ....		SMCXWFLD	1-IFALSWTR is currently performing SMF Flood Automation processing
		...1 ....		SMCXRFER	1-No successful flood policy updates have been made since the last failure
		.... 1...		SMCXFTST	1-SMF Record flooding has been disabled due to errors
		.... .1..		SMCX_PCC	Processor capacity change
		.... ..1.		SMCX_IBS	
		.... ...1		SMCX_IBE	
53	(35)	1... ....		SMCX_SDB	
		.1... ....		SMCX_RPB	
		..1. ....		SMCX_CVTLSO_CHANGED	CVTISO changed
		...1 ....		SMCX_RPBED	RP boost enable/disable
		.... 1...		SMCX_RPBI	RP boost info
		.... .1..		SMCX_WTDE_F_AVAIL_TEMPAREA_ENQD	When on, A WTDE for F_Avail_TempArea has been enqueued and not yet processed.
		.... ..1.		SMCX_SETSMF_IN_PROGRESS	SETSMF in progress. The SMCX_SET_SMF_In_Progress bit will also be set. Only for communication between IFASSMF/IFATSMF and IEEMB821
		.... ...1		SMCX_SET_SMF_IN_PROGRESS	SET SMF=xx in progress. Only for communication between IFASSMF and IEEMB821
56	(38)	ADDRESS	4	SMCXEXPT	ADDRESS OF INTXPT RTN IN IEEMB839
60	(3C)	ADDRESS	4	SMCX839A	POINTER TO IEEMB839 WORK AREA
Variables Used to Process MEMLIMIT Keyword in IEEMB821					
64	(40)	CHARACTER	8	SMCXMEML	MEMLIMIT converted to M-BYTES in HEX
72	(48)	CHARACTER	6	SMCXMEM	MEMLIMIT in EBCDIC
72	(48)	CHARACTER	5	SMCXMEMD	First 5 characters of MEMLIMIT as entered in SMFPRMxx - digits 0-9
77	(4D)	CHARACTER	1	SMCXMEMU	Last character of MEMLIMIT - units M, G, T or P as entered in SMFPRMxx
78	(4E)	SIGNED	2	SMCX_SPEEDCHANGSEQ#	Used to tell if end-interval processing needs to be done due to a concurrent speed-change that occurred
80	(50)	ADDRESS	4	SMCXFLDTABLEPTR	SMF Flood Table
84	(54)	ADDRESS	4	SMCXPCWT	pointer to IFAPCWTR
88	(58)	CHARACTER	1	SMCXLSBT	Log Stream bits
		1... ....		SMCXLSDS	1-LogStream or 0-ManX/Y output 0 - if RECORDING(DATASET) parameter is processed 1 - if RECORDING(LOGSTREAM) parameter is processed



Table 376. Structure SMCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		SMCX_LOGGER_RESTARTED	ON indicates that Logger has restarted after having been unavailable. Set to ON by IFALSENF, set to OFF by IFALSMOD.
		..1. ....		SMCXLMOD	1-IFALSMOD was ACTIVE The bit is set to ON once and forever if IFALSMOD even once received control. (It is needed while IPLing to know were logstream parameters processed or not)
89	(59)	CHARACTER	1	*	RESERVED (Can be used later)
90	(5A)	UNSIGNED	2	SMCXSMFRESTARTS	Number of times SMF address space has been restarted
92	(5C)	ADDRESS	4	SMCX_WTDE_HEAD	Ptr to head of Work_To_Do Element,
96	(60)	ADDRESS	4	SMCX_WTDE_TAIL	Ptr to tail of Work_To_Do Element,
100	(64)	CHARACTER	28	SMCX_SMFTYPE23STATS	SMF Type 23 Statistics section
100	(64)	UNSIGNED	4	SMCX_RCENUMOFGETMAINREQUESTS	Number of Getmain requests since last SMF type 23 record
104	(68)	UNSIGNED	4	SMCX_RCEPGSBACKEDONGTMNREQS	Number of pages backed during Getmain requests since last SMF type 23 record
108	(6C)	UNSIGNED	4	SMCX_RCENUMOFFIXREQUESTS	Number of fix requests for storage (address space only) below two gigabytes since last SMF Type 23 record
112	(70)	UNSIGNED	4	SMCX_RCENUMFRAMESFX	Number of frames requested to be fixed for storage (address space only) below two gigabytes since last SMF Type 23 record
116	(74)	UNSIGNED	4	SMCX_RCE1STREFFAULTS	Number of first reference faults taken since last SMF Type 23 record
120	(78)	UNSIGNED	4	SMCX_RCENON1STREFFAULTS	Number of non-first reference faults taken since last SMF Type 23 record
124	(7C)	ADDRESS	4	SMCX_SMF23CPUARRAYPTR	Pointer to the SMF Type 23 Statistics CPU array section
128	(80)	SIGNED	4	SMCX_CAPACITY_CHANGE_ECB	Set by IFAENFL for POSTing IFASMF
132	(84)	ADDRESS	4	SMCX_CURR_PCD_PTR	Pointer to current Processor Capacity data area
136	(88)	UNSIGNED	2	SMCX_CURR_CAPACITY_CHANGE_CNT	Number of processor capacity changes that occurred since the previous regular interval record was written.
138	(8A)	UNSIGNED	2	SMCX_INTV_CAPACITY_CHANGE_CNT	Number of processor capacity changes that occurred since the previous (event or non event driven) interval record was written. This field is cleared when an event driven interval record is written. and its value will be > 1 when the number of processor capacity changes exceeds the value specified by MAXEVENTINTRECS
140	(8C)	UNSIGNED	2	SMCX_MAXEVENTINTRECS	value of MAXEVENTINTRECS
142	(8E)	CHARACTER	2	SMCXRSV3	reserved for alignment
144	(90)	ADDRESS	4	SMCX_DPEXITS_PTR	Pointer to valid IFASMFDP exits
148	(94)	ADDRESS	4	SMCX_DLEXITS_PTR	Pointer to valid IFASMF DL exits

Table 376. Structure SMCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
152	(98)	ADDRESS	4	SMCX_TMR_ECB_PTR	Pointer to ECB used for STIMER when ENQ not available
156	(9C)	CHARACTER	4	SMCXESWT	SWT(hhmm)value as entered in SMFPRMxx
160	(A0)	SIGNED	4	SMCXMSWT	SWT(hhmm)value in minutes
164	(A4)	SIGNED	4	SMCXTSWT	SWT(hhmm)value in units of 2**20 microseconds
168	(A8)	CHARACTER	4	SMCXETWT	TWT(hhmm)value as entered in SMFPRMxx
172	(AC)	SIGNED	4	SMCXMTWT	TWT(hhmm)value in minutes
176	(B0)	SIGNED	4	SMCXTTWT	TWT(hhmm)value in units of 2**20 microseconds
180	(B4)	ADDRESS	4	SMCXJCST	Pointer to SMF Callable services stub routine (IFAJCST)
184	(B8)	ADDRESS	4	SMCXHFTS	Pointer to HFTS control table
188	(BC)	UNSIGNED	4	SMCX_BE_ECB	Set by IFAENFL for Posting by IFASMF
192	(C0)	CHARACTER	8	SMCX_SAVED_CVTLSO	Current or previous CVTLSO
200	(C8)	SIGNED	4	SMCX_CVTLSO_ECB	Set by IEEMB842 when a change to CVTLSO is detected.
204	(CC)	ADDRESS	4	SMCX_CRYPTRS_SUM_AREA_PTR	Address of the system crypto counters work area
208	(D0)	SIGNED	4	SMCX_ENF86_ECB	Set by IFAENFL for Compliance processing by IFASMF
212	(D4)	BITSTRING	4	SMCX_CSFLAGWORD1	Flag word serialized with CS. Do not add bytes without also CS-ing the whole word.
212	(D4)	BITSTRING	1	SMCX_CSF1BYTE1	Byte 1 of flag word
	1... ..			SMCX_LS_SWITCH_IN_FLIGHT	SWITCH in flight
	.111 1111			*	Not in use
213	(D5)	CHARACTER	3	*	Remaining flag word bytes
216	(D8)	CHARACTER	6	SMCX_SYSINTERVALC	Sys Interval in HHMMSS format
222	(DE)	CHARACTER	6	SMCX_IPLPARMVOL	IPL Parmlib Vol
228	(E4)	CHARACTER	44	SMCX_IPLPARMDSN	IPL Parmlib DSN
272	(110)	CHARACTER	6	SMCX_CURRPARMVOL	Current Parmlib Vol
278	(116)	CHARACTER	44	SMCX_CURRPARMDSN	Current Parmlib DSN
322	(142)	CHARACTER	2	*	Reserved for alignment
324	(144)	UNSIGNED	4	SMCX_CURRPARMTIME	Time current parmliib was set
328	(148)	UNSIGNED	4	SMCX_CURRPARMDATE	Date current parmliib was set
332	(14C)	UNSIGNED	4	SMCX_IPLPARMTIME	Time IPL parmliib was set
336	(150)	UNSIGNED	4	SMCX_IPLPARMDATE	Date IPL parmliib was set
340	(154)	CHARACTER	4	SMCXRSV4	Reserved
344	(158)	CHARACTER	0	SMCXEND	End of SMCX mapping

Table 377. Structure SMCX\_SMF23CPUARRAY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	SMCX_SMF23CPUARRAY	SMF Type 23 Statistics CPU array section
0	(0)	ADDRESS	4	SMCX_NEXTCPU	Address of next cpu array element (0 if last one)
4	(4)	UNSIGNED	4	SMCX_IOWIOCNT	Number of I/Os since last SMF Type 23 record

Table 377. Structure SMCX\_SMF23CPUARRAY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
8	(8)	UNSIGNED	4	SMCX_LCCATCBC	Number of unlocked TCB dispatches since last SMF Type 23 record
12	(C)	UNSIGNED	4	SMCX_LCCASRBC	Number of SRB dispatches since last SMF Type 23 record
16	(10)	CHARACTER	0	SMCXEND1	End of SMCX_SMF23CPUArray mapping

Table 378. Structure SMCX\_DUMP\_EXIT\_TBL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	*	SMCX_DUMP_EXIT_TBL	Mapping for a dump exit table
0	(0)	CHARACTER	20	SMCX_DMPETB_HDR	Table header
0	(0)	CHARACTER	8	SMCX_DMPTBL_ID	Eye catcher 'SMCXDMPT'
8	(8)	SIGNED	4	SMCX_DMPTBPL	Length and subpool
8	(8)	UNSIGNED	1	SMCX_DMPTBSP	Subpool of table
9	(9)	UNSIGNED	3	SMCX_DMPTBLN	Length of table
12	(C)	SIGNED	4	SMCX_DMP_ENTRIES	Number of entries
16	(10)	CHARACTER	4	SMCX_DMP_FLAGS	Flags
	1... ....			SMCX_DMP_UPDATED_WO_ENQ	This table was updated without serialization on the enqueue
20	(14)	CHARACTER	12	SMCX_DMPEXTS(*)	Exit name array
20	(14)	CHARACTER	3	SMCX_DMPEXIT_FLAGS	Flags for this exit
	1... ....			SMCX_DMP_LAST_ENTRY	Last entry flag
23	(17)	UNSIGNED	1	SMCX_DMPUSRN	1 - USER1 2 - USER2 3 - USER3
24	(18)	CHARACTER	8	SMCX_DMPNM	Dump exit name

Table 379. Structure SMCX\_PROC\_CAPACITY\_DATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	48	SMCX_PROC_CAPACITY_DATA	Processor Capacity Data from WLM fields, as indicated
0	(0)	CHARACTER	4	SMCX_PCD_EYE_CATCHER	'PCD '
4	(4)	ADDRESS	4	SMCX_PCD_PRIOR	PCD that was built prior to this PCD
8	(8)	BITSTRING	8	SMCX_PCD_CHANGE_TIME	RMCTZ_Capacity_Change_Time (STCK format)
16	(10)	SIGNED	4	SMCX_PCD_RQSVSUS	RQSVSUS
20	(14)	SIGNED	4	SMCX_PCD_RCTPCPUA_ACTUAL	RCTPCPUA_actual
24	(18)	SIGNED	4	SMCX_PCD_RCTPCPUA_NOMINAL	RCTPCPUA_nominal@L5A
28	(1C)	SIGNED	4	SMCX_PCD_RCTPCPUA_SCALING	RCTPCPUA_scaling_factor
32	(20)	UNSIGNED	1	SMCX_PCD_CAPACITY_ADJ_IND	RMCTZ_Capacity_Adj ustment_Indication
33	(21)	UNSIGNED	1	SMCX_PCD_CAPACITY_CHG_RSN	RMCTZ_Capacity_Change_Reason
34	(22)	UNSIGNED	2	SMCX_PCD_INTV_CHANGE_CNT	Copied from SMCX_Intv_Capacity_Change_Cnt
36	(24)	SIGNED	4	SMCX_PCD_SCHEDULED_SRBS	The number of SRBs currently scheduled to run that point to this PCD. This count is decremented at the end of each SRB routine. When the count is zero, the PCD is eligible to be freed.@L5A
40	(28)	BITSTRING	1	SMCX_PCD_FLAGS	
	1... ....			SMCX_PCD_RQSVSUS_ERR	Error retrieving RQSVSuS

Table 379. Structure SMCX\_PROC\_CAPACITY\_DATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		SMCX_PCD_ERR	Error retrieving the rest of the capacity group data
		..1. ....		SMCX_PCD_EVENT_INTV	Set to on when the current STQE is for an event driven interval
41	(29)	CHARACTER	3	SMCXRSV2	Reserved for alignment
44	(2C)	SIGNED	4	SMCX_PCD_RMCTADJN_NOMINAL	Nominal CPU rate adjustment
48	(30)	CHARACTER	0	SMCXEND2	End of SMCX_Processor_ Capacity_Data mapping

Table 380. Structure SMCX\_CRYPTRS\_SUM\_AREA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	SMCX_CRYPTRS_SUM_AREA	
0	(0)	CHARACTER	32	SMCX_CRYPTRS_SUM_AREA_HDR	
0	(0)	CHARACTER	8	SMCX_CRYPTRS_SUM_EYEC	'SMCXCRYP'
8	(8)	UNSIGNED	1	SMCX_CRYPTRS_SUM_SP	SP=245
9	(9)	UNSIGNED	3	SMCX_CRYPTRS_SUM_LEN	See size above
12	(C)	CHARACTER	16	SMCX_ENF86_REQUEST_ID	Request ID passed by the ENF 86 signaler
28	(1C)	CHARACTER	4	*	Reserved for alignment
32	(20)	CHARACTER	*	SMCX_CRYPTRS_BODY	CrypCtrs work area
32	(20)	CHARACTER	*	SMCX_CRYPTCTR_SUM_TABLE	This table contains the number of entries as defined in GSDA_Num_CrypCtrs.
32	(20)	BITSTRING	8	SMCX_CRYPTCTR_SUM_VALUE(*)	

Table 381. Constants for IEESMCX

Len	Type	Value	Name	Description
8	CHARACTER	SMCXCRYP	KSMCX_CRYPTRS_SUM_AREA_EYEC	
1	DECIMAL	245	KSMCX_CRYPTRS_SUM_AREA_SP	
4	CHARACTER	SMCX	SMCXSMCX	"SMCX" EBCDIC NAME
2	DECIMAL	1	SMCXLVL1	LEVEL 1 INDICATOR

Table 382. Cross Reference for IEESMCX

Name	Offset	Hex	Tag
SMCX	0		
SMCX_BE_ECB	BC		
SMCX_CAPACITY_CHANGE_ECB	80		
SMCX_CRYPTCTR_SUM_TABLE	20		
SMCX_CRYPTCTR_SUM_VALUE	20		
SMCX_CRYPTCTRS_BODY	20		
SMCX_CRYPTCTRS_SUM_AREA	0		
SMCX_CRYPTCTRS_SUM_AREA_HDR	0		
SMCX_CRYPTCTRS_SUM_AREA_PTR	CC		
SMCX_CRYPTCTRS_SUM_EYEC	0		
SMCX_CRYPTCTRS_SUM_LEN	9		

Table 382. Cross Reference for IEESMCX (continued)

Name	Offset	Hex Tag
SMCX_CRYPTRS_SUM_SP	8	
SMCX_CSFLAGWORD1	D4	
SMCX_CSF1BYTE1	D4	
SMCX_CURR_CAPACITY_CHANGE_CNT	88	
SMCX_CURR_PCD_PTR	84	
SMCX_CURRPARMDATE	148	
SMCX_CURRPARMDSN	116	
SMCX_CURRPARMTIME	144	
SMCX_CURRPARMVOL	110	
SMCX_CVTLSO_CHANGED	35	20
SMCX_CVTLSO_ECB	C8	
SMCX_DLEXITS_PTR	94	
SMCX_DMP_ENTRIES	C	
SMCX_DMP_FLAGS	10	
SMCX_DMP_LAST_ENTRY	14	80
SMCX_DMP_UPDATED_WO_ENQ	10	80
SMCX_DMPETB_HDR	0	
SMCX_DMPEXIT_FLAGS	14	
SMCX_DMPEXTS	14	
SMCX_DMPNM	18	
SMCX_DMPTBL_ID	0	
SMCX_DMPTBLN	9	
SMCX_DMPTBPL	8	
SMCX_DMPTBSP	8	
SMCX_DMPUSRN	17	
SMCX_DPEXITS_PTR	90	
SMCX_DUMP_EXIT_TBL	0	
SMCX_ENF86_ECB	D0	
SMCX_ENF86_REQUEST_ID	C	
SMCX_IBE	34	01
SMCX_IBS	34	02
SMCX_INTV_CAPACITY_CHANGE_CNT	8A	
SMCX_IOWIOCNT	4	
SMCX_IPLPARMDATE	150	
SMCX_IPLPARMDSN	E4	
SMCX_IPLPARMTIME	14C	
SMCX_IPLPARMVOL	DE	
SMCX_LCCASRBC	C	
SMCX_LCCATCBC	8	

Table 382. Cross Reference for IEESMCX (continued)

Name	Offset	Hex Tag
SMCX_LOGGER_RESTARTED	58	40
SMCX_LS_SWITCH_IN_FLIGHT	D4	80
SMCX_MAXEVENTINTRECS	8C	
SMCX_NEXTCPU	0	
SMCX_PCD_CAPACITY_ADJ_IND	20	
SMCX_PCD_CAPACITY_CHG_RSN	21	
SMCX_PCD_CHANGE_TIME	8	
SMCX_PCD_ERR	28	40
SMCX_PCD_EVENT_INTV	28	20
SMCX_PCD_EYE_CATCHER	0	
SMCX_PCD_FLAGS	28	
SMCX_PCD_INTV_CHANGE_CNT	22	
SMCX_PCD_PRIOR	4	
SMCX_PCD_RCTPCPUA_ACTUAL	14	
SMCX_PCD_RCTPCPUA_NOMINAL	18	
SMCX_PCD_RCTPCPUA_SCALING	1C	
SMCX_PCD_RMCTADJN_NOMINAL	2C	
SMCX_PCD_RQSVSUS	10	
SMCX_PCD_RQSVSUS_ERR	28	80
SMCX_PCD_SCHEDULED_SRBS	24	
SMCX_PROC_CAPACITY_DATA	0	
SMCX_RCENON1STREFFAULTS	78	
SMCX_RCENUMFRAMESFX	70	
SMCX_RCENUMOFFIXREQUESTS	6C	
SMCX_RCENUMOFGETMAINREQUESTS	64	
SMCX_RCEPGSBACKEDONGTMNREQS	68	
SMCX_RCE1STREFFAULTS	74	
SMCX_RPB	35	40
SMCX_RPBED	35	10
SMCX_RPBI	35	08
SMCX_SAVED_CVTLS0	C0	
SMCX_SDB	35	80
SMCX_SET_SMF_IN_PROGRESS	35	01
SMCX_SETSMF_IN_PROGRESS	35	02
SMCX_SMFTYPE23STATS	64	
SMCX_SMF23CPUARRAY	0	
SMCX_SMF23CPUARRAYPTR	7C	
SMCX_SPEEDCHANGSEQ#	4E	
SMCX_SYSINTERVALC	D8	

Table 382. Cross Reference for IEESMCX (continued)

Name	Offset	Hex Tag
SMCX_TMR_ECB_PTR	98	
SMCX_WTDE_F_AVAIL_TEMPAREA_ENQD	35	04
SMCX_WTDE_HEAD	5C	
SMCX_WTDE_TAIL	60	
SMCXBIT1	34	
SMCXDFRQ	2C	
SMCXEND	158	
SMCXEND1	10	
SMCXEND2	30	
SMCXENFP	28	
SMCXESWT	9C	
SMCXETWT	A8	
SMCXEXCP	34	40
SMCXEXPT	38	
SMCXFLDTABLEPTR	50	
SMCXFTST	34	08
SMCXHFTS	B8	
SMCXID	0	
SMCXINTE	1C	
SMCXINTP	18	
SMCXINTT	24	
SMCXINTV	8	
SMCXJCST	B4	
SMCXLEN	6	
SMCXLMOD	58	20
SMCXLSBT	58	
SMCXLSDS	58	80
SMCXLVL	4	
SMCXMEM	48	
SMCXMEMD	48	
SMCXMEML	40	
SMCXMEMU	4D	
SMCXMSWT	A0	
SMCXMTWT	AC	
SMCXPCP	34	04
SMCXPCWT	54	
SMCXRFER	34	10
SMCXRSV2	29	
SMCXRSV3	8E	

Table 382. Cross Reference for IEESMCX (continued)

Name	Offset	Hex Tag
SMCXRSV4	154	
SMCXSMFRESTARTS	5A	
SMCXSPDB	34	80
SMCXSYNP	1A	
SMCXSYNV	10	
SMCXTSWT	A4	
SMCXTTWT	B0	
SMCXWFLD	34	20
SMCX824A	30	
SMCX839A	3C	

## IEEZB833 information

### IEEZB833 programming interface information

The following fields are **NOT** programming interface information:

- VDEV\_DDR\_CALLER
- VDEV\_DO\_NOT\_CHECK\_VOLSER
- VDEV\_DWNLVL\_ENQS\_HELD
- VDEV\_ERROR\_MESSAGES
- VDEV\_ERROR\_SUPPRESS\_PATH\_MSGS
- VDEV\_ISSUE\_ALL\_MESSAGES
- VDEV\_SMS\_LIBRARY

### IEEZB833 heading information

<b>Common name:</b>	VARY Device Service Input
<b>Macro ID:</b>	IEEZB833
<b>DSECT name:</b>	VDEV VDEVARR
<b>Owning component:</b>	Master Scheduler (SC1B8)
<b>Eye-catcher ID:</b>	'VDEV' Offset: 0 Length: 4
<b>Storage attributes:</b>	Key: Caller
<b>Size:</b>	Version dependent: For version 1 (the default): X'10' byte header plus 4 bytes per device For version 10: X'20' byte header plus 4 bytes per device
<b>Created by:</b>	Caller of IEEVARYD service
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None



**Function:** Maps the input parameters for invokers of the IEEVARYD service.

## IEEZB833 mapping

Table 383. Structure VDEV

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	VDEV	VARY Device Service Input
0	(0)	DBL WORD	8	VDEV_VERSION_1(0)	Align on doubleword boundary
0	(0)	CHARACTER	4	VDEV_ID	VDEV identifier ('VDEV')
4	(4)	BITSTRING	1	VDEV_VERSION	VDEV version number
5	(5)	BITSTRING	3		Reserved
8	(8)	BITSTRING	2	VDEV_KEYWORDS(0)	VARY device command keywords
8	(8)	BITSTRING	1	VDEV_KEYWORDS1	First byte of keywords
		1... ..		VDEV_ONLINE	"X'80'" ONLINE keyword
		.1.. ..		VDEV_OFFLINE	"X'40'" OFFLINE keyword
		..1. ....		VDEV_AUTOSWITCH	"X'20'" AUTOSWITCH keyword
		...1 ....		VDEV_UNAVAIL	"X'10'" UNAVAILABLE keyword
9	(9)	BITSTRING	1	VDEV_KEYWORDS2	Second byte of keywords
		1... ..		VDEV_UNCOND	"X'80'" UNCOND keyword
		.1.. ..		VDEV_SHR	"X'40'" SHR keyword
		..1. ....		VDEV_RESET	"X'20'" RESET keyword
		...1 ....		VDEV_FORCE	"X'10'" FORCE keyword
		.... 1...		VDEV_ON	"X'08'" ON keyword
		.... .1..		VDEV_OFF	"X'04'" OFF keyword
10	(A)	BITSTRING	2	VDEV_OPTIONS(0)	Additional options
10	(A)	BITSTRING	1	VDEV_OPTIONS1	First byte of additional options
		1... ..		VDEV_KEEP_OFFLINE_CM	"X'80'" Keep device(s) offline due to a configuration manager
		.1.. ..		VDEV_DWNLVL_ENQS_HELD	"X'40'" Provided for compatability with HBB7720 and below. Was VDEV_ENQS_HELD. This flag should not be used as of HBB7730
		..1. ....		VDEV_ERROR_SUPPRESS_PATH_MSGS	"X'20'" Issue error messages but suppress pathing messages
		...1 ....		VDEV_SMS_LIBRARY	"X'10'" SMS library is being varied
		.... 1...		VDEV_ERROR_MESSAGES	"X'08'" Issue error messages
		.... .1..		VDEV_DO_NOT_CHECK_VOLSER	"X'04'" Bring the device online without checking its volume serial number
		.... ..1.		VDEV_DDR_CALLER	"X'02'" Indicate that DDR issued the internal vary
		.... ...1		VDEV_DO_NOT_WAIT_FOR_ENQ	"X'01'" Return to the caller if SYSIEFSD.Q4 cannot be obtained in a short amount of time
11	(B)	BITSTRING	1	VDEV_OPTIONS2	Second byte of additional options
		1... ..		VDEV_CART_AND_CONSID	"X'80'" Use the CART and CONSID specified. This requires a VERSION10 VDEV
		.1.. ..		VDEV_ISSUE_ALL_MESSAGES	"X'40'" Return all messages. This requires a VERSION10 VDEV
12	(C)	BITSTRING	4	VDEV_CONSID	Console ID

Table 383. Structure VDEV (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
12	(C)	X'10'	0	VDEV_LENGTH_VERSION1	"*-VDEV" Length of VDEV version 1
12	(C)	X'10'	0	VDEV_LENGTH	"*-VDEV" Length of this VDEV version Input

Table 384. Structure VDEVARR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VDEVARR	IEEVARYD Device Array Entry
0	(0)	SIGNED	4	(0)	Align on fullword boundary
0	(0)	BITSTRING	2	VDEVARR_DEVN	Device number
2	(2)	BITSTRING	2		Reserved
2	(2)	X'4'	0	VDEVARR_LENGTH	"*-VDEVARR" Length of IEEVARYD Device Array Entry

## Constants

		.... ...1		VDEV_VERN_1	"X'01'" Version for VDEV version 1
2	(2)	X'1'	0	VDEV_VERN	"VDEV_VERN_1" VDEV version
2	(2)	X'C4C5E5'	0	VDEV_CBID	"C'VDEV'" VDEV identifier

Table 385. Cross Reference for IEEZB833

Name	Offset	Hex Tag
VDEV	0	
VDEV_AUTOSWITCH	8	20
VDEV_CART_AND_CONSID	B	80
VDEV_CBID	2	C4C5E5
VDEV_CONSID	C	
VDEV_DDR_CALLER	A	2
VDEV_DO_NOT_CHECK_VOLSER	A	4
VDEV_DO_NOT_WAIT_FOR_ENQ	A	1
VDEV_DWNLVL_ENQS_HELD	A	40
VDEV_ERROR_MESSAGES	A	8
VDEV_ERROR_SUPPRESS_PATH_MSGS	A	20
VDEV_FORCE	9	10
VDEV_ID	0	
VDEV_ISSUE_ALL_MESSAGES	B	40
VDEV_KEEP_OFFLINE_CM	A	80
VDEV_KEYWORDS	8	
VDEV_KEYWORDS1	8	
VDEV_KEYWORDS2	9	
VDEV_LENGTH	C	10
VDEV_LENGTH_VERSION1	C	10
VDEV_OFF	9	4
VDEV_OFFLINE	8	40

Table 385. Cross Reference for IEEZB833 (continued)

Name	Offset	Hex Tag
VDEV_ON	9	8
VDEV_ONLINE	8	80
VDEV_OPTIONS	A	
VDEV_OPTIONS1	A	
VDEV_OPTIONS2	B	
VDEV_RESET	9	20
VDEV_SHR	9	40
VDEV_SMS_LIBRARY	A	10
VDEV_UNAVAIL	8	10
VDEV_UNCOND	9	80
VDEV_VERN	2	1
VDEV_VERN_1	2	1
VDEV_VERSION	4	
VDEV_VERSION_1	0	
VDEVARR	0	
VDEVARR_DEVN	0	
VDEVARR_LENGTH	2	4

## IEEZB834 information

### IEEZB834 programming interface information

The following field is **NOT** programming interface information:

- VDRSARR\_OFFLINE\_OPERATOR

### IEEZB834 heading information

<b>Common name:</b>	VARY Device Service Results
<b>Macro ID:</b>	IEEZB834
<b>DSECT name:</b>	VDRSARR
<b>Owning component:</b>	Master Scheduler (SC1B8)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Key:    Caller
<b>Size:</b>	VDRSARR -- X'0068' bytes
<b>Created by:</b>	Caller of IEEVARYD service
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	Maps the output from the IEEVARYD service.

## IEEZB834 mapping

Table 386. Structure VDRSARR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	VDRSARR	VARY Device Service Results Array
0	(0)	CHARACTER	2	VDRSARR_OUTPUT_FLAGS	Output flags
0	(0)	CHARACTER	1	VDRSARR_OUTPUT_FLAGS1	First byte of output flags
Bit definitions:					
		1... ....		VDRSARR_OUTPUT_VALID	"X'80'" Device output is valid
		.1... ....		VDRSARR_MSG_RETURNED	"X'40'" Message area contains a message
1	(1)	CHARACTER	1	VDRSARR_OUTPUT_FLAGS2	Second byte of output flags
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	VDRSARR_RETCODE	Device return code
8	(8)	SIGNED	4	VDRSARR_RSNCODE	Device reason code
12	(C)	CHARACTER	12		Reserved
24	(18)	CHARACTER	71	VDRSARR_MSGAREA	Message area
95	(5F)	CHARACTER	9		Reserved
95	(5F)	X'68'	0	VDRSARR_LENGTH	"104" Length of VARY Device Service Results Array Entry
Device Return Codes (values for VDRSARR_RETCODE)					
95	(5F)	X'0'	0	VDRSARR_OK	"0" Successfully varied online/offline or the AUTOSWITCH attribute or the unavailable state for the device was successfully changed
95	(5F)	X'4'	0	VDRSARR_ALREADY_OK	"4" Already online/offline or in requested AUTOSWITCH mode
95	(5F)	X'8'	0	VDRSARR_PENDING	"8" Pending offline
95	(5F)	X'C'	0	VDRSARR_ONLINE_WITH_REST	"12" Online with restrictions
95	(5F)	X'10'	0	VDRSARR_FAIL	"16" Did not come online/offline or the AUTOSWITCH attribute or the unavailable state was not changed for the device
95	(5F)	X'14'	0	VDRSARR_OFF_PENDBOX	"20" Offline and pending boxed
95	(5F)	X'18'	0	VDRSARR_PENDOFF_PENDBOX	"24" Pending offline and pending boxed
95	(5F)	X'20'	0	VDRSARR_UNEXP_ERR	"32" Unexpected error
Device Reason Codes (values for VDRSARR_RSNCODE)					
95	(5F)	X'0'	0	VDRSARR_NO_INFO	"0" No additional information
95	(5F)	X'1'	0	VDRSARR_SEE_MSGAREA	"1" See message area
95	(5F)	X'2'	0	VDRSARR_NOUCB	"2" No UCB for device
95	(5F)	X'3'	0	VDRSARR_UNIT_MUST_BE_OFFLINE	"3" Unit must be OFFLINE before its AUTOSWITCH attribute or unavailable state can be changed
95	(5F)	X'4'	0	VDRSARR_DEVICE_NOT_VALID	"4" Unit is not a valid device type for the AUTOSWITCH attribute or unavailable state
95	(5F)	X'6'	0	VDRSARR_NO_LOG_PATHS	"6" Device has no logical paths
95	(5F)	X'7'	0	VDRSARR_NO_PHY_PATHS	"7" Device has no physical paths
95	(5F)	X'8'	0	VDRSARR_IN_USE	"8" Device in use by system function

Table 386. Structure VDRSARR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
95	(5F)	X'9'	0	VDRSARR_ABORT	"9" VARY processing aborted
95	(5F)	X'A'	0	VDRSARR_DYN_PATH	"10" Dynamic pathing failed
95	(5F)	X'B'	0	VDRSARR_ASSIGN	"11" Device assigned to another system
95	(5F)	X'C'	0	VDRSARR_INCOMP_ASSIGN	"12" Incompatible assign requested
95	(5F)	X'D'	0	VDRSARR_ASSIGN_FAILED	"13" Assign failed
95	(5F)	X'E'	0	VDRSARR_PENDOFF_BOXED	"14" Pending offline and boxed
95	(5F)	X'F'	0	VDRSARR_KEPT_OFFLINE_CM	"15" Device being kept offline by a configuration manager
95	(5F)	X'10'	0	VDRSARR_OFFLINE_OPERATOR	"16" Device is offline due to operator and cannot be brought online as part of an SMS library operation
95	(5F)	X'11'	0	VDRSARR_IN_TAPE_LIB	"17" Device is in a system-managed tape library
95	(5F)	X'12'	0	VDRSARR_IN_USE_BY_CUIR	"18" Device is in use by C.U.I.R.
95	(5F)	X'13'	0	VDRSARR_NOT_ELIGIBLE	"19" Device is not eligible for a vary operation (e.g., device is SYSRES or non-base multiple exposure)
95	(5F)	X'14'	0	VDRSARR_VOLUME_NOT_READ	"20" Volume could not be read
95	(5F)	X'15'	0	VDRSARR_MANAGED_BY_JES3	"21" Device is managed by JES3
95	(5F)	X'16'	0	VDRSARR_CONSOLE_CHANGING	"22" Device is the console device for a console which is currently changing console status
95	(5F)	X'17'	0	VDRSARR_CONSOLE_IO	"23" Device is the console device for a console which has invalid input/output capabilities
95	(5F)	X'18'	0	VDRSARR_MASTER_OFF_FORCE	"24" Device is the console device for the master console and the OFFLINE and FORCE keywords were not specified. This value is not used in HBB7730 or above.
95	(5F)	X'19'	0	VDRSARR_MASTER_OTHER_ACT	"25" Device is the console device for the master console and there is at least one other active full capability console. This value is not used in HBB7730 or above.
95	(5F)	X'1A'	0	VDRSARR_MASTER_MSTCONS	"26" Device is the console device for the master console and the VARY MSTCONS command can be accepted from any console. This value is not used in HBB7730 or above.
95	(5F)	X'1B'	0	VDRSARR_MASTER_CANDIDATE	"27" Device is the console device for the master console candidate or the local candidate. This value is not used in HBB7730 or above.
95	(5F)	X'1C'	0	VDRSARR_HARDCOPY_CONSOLE	"28" Device is the console device for the hardcopy console Note: this return code is no longer used as of JBB7727.
95	(5F)	X'1D'	0	VDRSARR_DEVICE_RESERVED	"29" Device is not allowed to be OFFLINED when it is reserved
95	(5F)	X'68'	0	VDRSARR_LEN	"*-VDRSARR"

Table 387. Cross Reference for IEEZB834

Name	Offset	Hex Tag
VDRSARR	0	
VDRSARR_ABORT	5F	9

Table 387. Cross Reference for IEEZB834 (continued)

Name	Offset	Hex Tag
VDRSARR_ALREADY_OK	5F	4
VDRSARR_ASSIGN	5F	B
VDRSARR_ASSIGN_FAILED	5F	D
VDRSARR_CONSOLE_CHANGING	5F	16
VDRSARR_CONSOLE_IO	5F	17
VDRSARR_DEVICE_NOT_VALID	5F	4
VDRSARR_DEVICE_RESERVED	5F	1D
VDRSARR_DYN_PATH	5F	A
VDRSARR_FAIL	5F	10
VDRSARR_HARDCOPY_CONSOLE	5F	1C
VDRSARR_IN_TAPE_LIB	5F	11
VDRSARR_IN_USE	5F	8
VDRSARR_IN_USE_BY_CUIR	5F	12
VDRSARR_INCOMP_ASSIGN	5F	C
VDRSARR_KEPT_OFFLINE_CM	5F	F
VDRSARR_LEN	5F	68
VDRSARR_LENGTH	5F	68
VDRSARR_MANAGED_BY_JES3	5F	15
VDRSARR_MASTER_CANDIDATE	5F	1B
VDRSARR_MASTER_MSTCONS	5F	1A
VDRSARR_MASTER_OFF_FORCE	5F	18
VDRSARR_MASTER_OTHER_ACT	5F	19
VDRSARR_MSG_RETURNED	0	40
VDRSARR_MSGAREA	18	
VDRSARR_NO_INFO	5F	0
VDRSARR_NO_LOG_PATHS	5F	6
VDRSARR_NO_PHY_PATHS	5F	7
VDRSARR_NOT_ELIGIBLE	5F	13
VDRSARR_NOUCB	5F	2
VDRSARR_OFF_PENDBOX	5F	14
VDRSARR_OFFLINE_OPERATOR	5F	10
VDRSARR_OK	5F	0
VDRSARR_ONLINE_WITH_REST	5F	C
VDRSARR_OUTPUT_FLAGS	0	
VDRSARR_OUTPUT_FLAGS1	0	
VDRSARR_OUTPUT_FLAGS2	1	
VDRSARR_OUTPUT_VALID	0	80
VDRSARR_PENDING	5F	8
VDRSARR_PENDOFF_BOXED	5F	E

Table 387. Cross Reference for IEEZB834 (continued)

Name	Offset	Hex Tag
VDRSARR_PENDOFF_PENDBOX	5F	18
VDRSARR_RETCODE	4	
VDRSARR_RSNCODE	8	
VDRSARR_SEE_MSGAREA	5F	1
VDRSARR_UNEXP_ERR	5F	20
VDRSARR_UNIT_MUST_BE_OFFLINE	5F	3
VDRSARR_VOLUME_NOT_READ	5F	14

## IEEZB887 information

### IEEZB887 programming interface information

IEEZB887 is a programming interface.

### IEEZB887 heading information

**Common name:** EMCS Console Display Mapping

**Macro ID:** IEEZB887

**DSECT name:** ECDM

**Owning component:** Master Scheduler (SC1B8)

**Eye-catcher ID:** ECDM  
Offset: 4  
Length: 4

**Storage attributes:** Main Storage: Yes  
Virtual Storage: No  
Auxiliary Storage: No  
Subpool: Caller's  
Key: Caller's  
Data Space: No  
Residency: Any

**Size:** ECDM\_HDR -- X'0014' bytes  
ECDM\_SUMM -- X'0018' bytes  
ECDM\_INFO -- X'0070' bytes  
ECDM\_MSCP -- X'0014' bytes  
ECDM\_CNSW -- X'0014' bytes  
ECDM\_DSP -- X'001C' bytes  
NOTE THAT SOME SECTIONS CAN ACTUALLY BE OF VARIABLE LENGTH. SEE THE DECLARED STRUCTURES FOR DETAILS.

**Created by:** IEEQEMCS

**Pointed to by:** Set up by caller, pointed to by Register 1 during IEEQEMCS processing

**Serialization:** None

**Function:** Mapping of EMCS Console Data returned by Query EMCS Console Service (IEEQEMCS)

## IEEZB887 mapping

Table 388. Structure ECDM\_HDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ECDM_HDR	EMCS Console Data Header Mapping
0	(0)	CHARACTER	4	ECDM_ACRN	Eyecatcher
4	(4)	BITSTRING	4	ECDM_VERS	Version
8	(8)	SIGNED	4	ECDM_HDR_SIZE	Size of ECDM block
12	(C)	SIGNED	4	ECDM_SIZE	Size of entire data buffer
16	(10)	SIGNED	2	ECDM_NENT	Number of console entries in the output buffer
18	(12)	CHARACTER	2		Reserved
18	(12)	X'14'	0	ECDM_HDR_LEN	"*-ECDM_HDR"

Table 389. Structure ECDM\_SUMM

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ECDM_SUMM	EMCS console SUMM block
0	(0)	SIGNED	2	ECDM_SUMM_TYPE	Type of block. Should be ECDM_TYPE_SUMM
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ECDM_SUMM_SIZE	Size of the ECDM_SUMM block
8	(8)	SIGNED	4	ECDM_SUMM_CONS_SIZE	Size of the entire EMCS console entry
12	(C)	BITSTRING	2	ECDM_SUMM_FLGS	Flag bytes
12	(C)	BITSTRING	1	ECDM_SUMM_FLG1	Flag byte 1

Bit definitions:

		1... ....		ECDM_SUMM_INFO	"X'80'" Data block was returned for this entry
		.1.. ....		ECDM_SUMM_MSCP	"X'40'" MSCOP list was returned for this entry
		..1. ....		ECDM_SUMM_CNSW	"X'20'" CN_SWITCH list was returned for this entry (not supported as of HBB7730)
		...1 ....		ECDM_SUMM_DSP	"X'10'" Dataspace block was returned for this entry
13	(D)	BITSTRING	1	ECDM_SUMM_FLG2	Flag byte 2

Bit definitions:

		1... ....		ECDM_SUMM_ACTIVE	"X'80'" ON = console is active
14	(E)	CHARACTER	2		Reserved
16	(10)	CHARACTER	8	ECDM_SUMM_NAME	Console name
16	(10)	X'18'	0	ECDM_SUMM_LEN	"*-ECDM_SUMM"

Table 390. Structure ECDM\_INFO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ECDM_INFO	EMCS console INFO block
0	(0)	SIGNED	2	ECDM_INFO_TYPE	Type of block. Should be ECDM_TYPE_INFO
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ECDM_INFO_SIZE	Size of this console INFO block



Table 390. Structure ECDM\_INFO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
8	(8)	SIGNED	4	ECDM_INFO_CNID	4-byte console ID
12	(C)	BITSTRING	1	ECDM_INFO_MIGID	1-byte migration ID (not supported as of HBB7730)
13	(D)	BITSTRING	1	ECDM_INFO_FLG1	Miscellaneous flag byte
Bit definitions:					
		1... ....		ECDM_INFO_SWTO_VALID	"X'80'" This console has been switched (SWITCHTO is valid) (not supported as of HBB7730)
		.1.. ....		ECDM_INFO_ALTGRP_VALID	"X'40'" There is an alternate group for this console (not supported as of HBB7730)
		..1. ....		ECDM_INFO_MIGID_VALID	"X'20'" There is an migration ID for this console (Reserved as of HBB7730)
		...1 ....		ECDM_INFO_JOBINFO_VALID	"X'10'" There is a JOBNAME and JOBID available for this console
		.... 1...		ECDM_INFO_AUTOACT_VALID	"X'08'" There is an AUTOACT group available for this console
		.... .1..		ECDM_INFO_AUTOACT_SUSP	"X'04'" There is an AUTOACT group defined but AUTOACT processing is suspended
		.... ..1.		ECDM_INFO_AUTOACT_NOTAVAIL	"X'02'" AUTOACT info is not available for this console (not on this system)
14	(E)	SIGNED	2	ECDM_INFO_ASID	ASID (only valid if this is an active console on this system, otherwise it is zero)
16	(10)	BITSTRING	1	ECDM_INFO_STFLG	Console status flag byte
Bit definitions:					
		1... ....		ECDM_INFO_ACTIVE	"X'80'" Console is active
		.1.. ....		ECDM_INFO_PD	"X'40'" Console is in PD mode
		..1. ....		ECDM_INFO_SYSCONS	"X'20'" Console is a System Console
17	(11)	BITSTRING	1	ECDM_INFO_RTFLG	Routing Flags
Bit definitions:					
		1... ....		ECDM_INFO_RSV1	"X'80'" Reserved was ECDM_INFO_UD
		.1.. ....		ECDM_INFO_HC	"X'40'" HC bit
		..1. ....		ECDM_INFO_AUTO	"X'20'" AUTO bit
		...1 ....		ECDM_INFO_MNJB	"X'10'" Monitor jobnames
		.... 1...		ECDM_INFO_MNST	"X'08'" Monitor status
		.... .1..		ECDM_INFO_MNSS	"X'04'" Monitor sessions
		.... ..1.		ECDM_INFO_MSCP_ALL	"X'02'" MSCOPE=*ALL
		.... ...1		ECDM_INFO_NO_MSCP	"X'01'" No MSCOPE data available - this is not a sysplex
18	(12)	BITSTRING	1	ECDM_INFO_DOM	DOM attribute bits
Bit definitions:					
		1... ....		ECDM_INFO_DOMALL	"X'80'" DOM=ALL
		.1.. ....		ECDM_INFO_DOMNORM	"X'40'" DOM=NORMAL
		..1. ....		ECDM_INFO_DOMNONE	"X'20'" DOM=NONE
19	(13)	BITSTRING	1	ECDM_INFO_MLVL	Level Byte

Table 390. Structure ECDM\_INFO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Bit definitions:					
		1... ....		ECDM_INFO_LVW	"X'80'" Display WTOR's
		.1.. ....		ECDM_INFO_LVIA	"X'40'" Display Immediate Action messages
		..1. ....		ECDM_INFO_LVCE	"X'20'" Display Critical Eventual Action messages
		...1 ....		ECDM_INFO_LVE	"X'10'" Display Eventual Action messages
		.... 1...		ECDM_INFO_LVI	"X'08'" Display Informational messages
		.... .1..		ECDM_INFO_LVBC	"X'04'" Display Broadcast messages
20	(14)	BITSTRING	1	ECDM_INFO_AUTH	Console authority byte
Bit definitions:					
		1... ....		ECDM_INFO_SYS	"X'80'" Console has SYS authority
		.1.. ....		ECDM_INFO_IO	"X'40'" Console has IO authority
		..1. ....		ECDM_INFO_CONS	"X'20'" Console has CONS authority
		...1 ....		ECDM_INFO_MASTER	"X'10'" Console has MASTER authority
21	(15)	BITSTRING	1	ECDM_INFO_RTFLG2	Routing Flags Byte 2
Bit definitions:					
		1... ....		ECDM_INFO_INTIDS	"X'80'" Console has INTIDS (receiving messages for console id zero)
		.1.. ....		ECDM_INFO_UNKNIDS	"X'40'" Console has UNKNIDS (receiving messages for unknown CNIDs)
22	(16)	CHARACTER	2		Reserved
24	(18)	CHARACTER	8	ECDM_INFO_KEY	User assigned key
32	(20)	CHARACTER	8	ECDM_INFO_SYSNM	System name
40	(28)	CHARACTER	8	ECDM_INFO_TERM	Terminal name
48	(30)	CHARACTER	8	ECDM_INFO_JOBNM	JOBNAME
56	(38)	CHARACTER	8	ECDM_INFO_JOBID	JOBID
64	(40)	CHARACTER	8	ECDM_INFO_CSYS	CMDSYS
72	(48)	CHARACTER	8	ECDM_INFO_ALTGRP	ALTGRP (not supported as of HBB7730)
80	(50)	CHARACTER	8	ECDM_INFO_SWTO	SWITCHTO (not supported as of HBB7730)
88	(58)	CHARACTER	16	ECDM_INFO_ROUT	Routing codes
104	(68)	CHARACTER	8	ECDM_INFO_AUTOACT	AUTOACT
104	(68)	X'70'	0	ECDM_INFO_LEN	"*-ECDM_INFO"

Table 391. Structure ECDM\_MSCP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECDM_MSCP	EMCS console MSCOPE block
0	(0)	CHARACTER	12	ECDM_MSCP_HDR	MSCOPE fixed-size header. Should be ECDM_TYPE_MSCP
0	(0)	SIGNED	2	ECDM_MSCP_TYPE	Type of block
2	(2)	CHARACTER	2		Reserved

Table 391. Structure ECDM\_MSCP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	SIGNED	4	ECDM_MSCP_SIZE	Size of this console MSCOPE block
8	(8)	SIGNED	4	ECDM_MSCP_MNUM	Number of entries in MSCOPE block
12	(C)	CHARACTER	8	ECDM_MSCP_LIST	MSCOPE list
12	(C)	X'14'	0	ECDM_MSCP_LEN	"*-ECDM_MSCP"

Table 392. Structure ECDM\_CNSW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECDM_CNSW	EMCS console CNSWITCH block (not supported as of HBB7730)
0	(0)	CHARACTER	12	ECDM_CNSW_HDR	CNSWITCH fixed-size header. Should be ECDM_TYPE_CNSW
0	(0)	SIGNED	2	ECDM_CNSW_TYPE	Type of block
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ECDM_CNSW_SIZE	Size of this console CNSWITCH block
8	(8)	SIGNED	4	ECDM_CNSW_MNUM	Number of entries in CNSWITCH block
12	(C)	CHARACTER	8	ECDM_CNSW_LIST	CNSWITCH list
12	(C)	X'14'	0	ECDM_CNSW_LEN	"*-ECDM_CNSW"

Table 393. Structure ECDM\_DSP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECDM_DSP	Dataspace status mapping
0	(0)	SIGNED	2	ECDM_DSP_TYPE	Type of block. Should be ECDM_TYPE_DSP
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ECDM_DSP_SIZE	Size of the dataspace status mapping
8	(8)	SIGNED	4	ECDM_DSP_QD	Queue depth in use
12	(C)	SIGNED	4	ECDM_DSP_QLIM	Queue depth limit
16	(10)	BITSTRING	1	ECDM_DSP_ALERTPCT	Alert percentage
17	(11)	BITSTRING	1	ECDM_DSP_ERR	Error condition byte

## Bit definitions:

	1... ..		ECDM_DSP_CLIM	"X'80'" Queueing stopped by Memory Limit	
	.1.. ..		ECDM_DSP_DLIM	"X'40'" Queueing stopped by Queue Depth Limit	
	..1. ....		ECDM_DSP_INTR	"X'20'" Queueing stopped by Internal Error	
	...1 ....		ECDM_DSP_ALRT	"X'10'" Queueing reached Alert Percentage	
18	(12)	CHARACTER	2	Reserved	
20	(14)	SIGNED	4	ECDM_DSP_CURRDSSIZE	Current dataspace size in kilobytes (K)
24	(18)	SIGNED	4	ECDM_DSP_MAXDSSIZE	Maximum dataspace size in kilobytes (K)
24	(18)	X'C3C4D4'	0	ECDM_ACR	"C'ECDM'" Eyecatcher

## Version numbers

	.... ...1		ECDM_VERS1	"X'00000001'" Version number
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Table 393. Structure ECDM\_DSP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..11		ECDM_VERS3	"X'00000003'" Version number 3
		.... 1.1.		ECDM_VERS_HBB7730	"X'0000000A'" Version number 10
		...1 ....		ECDM_VERS_HBB7750	"X'00000010'" Version number 16
		...1 ....		ECDM_VERID	"X'00000010'" Current version number
Sub-block identifiers					
24	(18)	X'8'	0	ECDM_TYPE_SUMM	"8" Console SUMM block type
24	(18)	X'10'	0	ECDM_TYPE_INFO	"16" Console INFO block type
24	(18)	X'20'	0	ECDM_TYPE_MSCP	"32" Console MSCOPE block type
24	(18)	X'40'	0	ECDM_TYPE_CNSW	"64" Console CNSWITCH block type (not supported as of HBB7730)
24	(18)	X'80'	0	ECDM_TYPE_DSP	"128" Console dataspace block type
24	(18)	X'1C'	0	ECDM_DSP_LEN	"*-ECDM_DSP"

Table 394. Cross Reference for IEEZB887

Name	Offset	Hex Tag
ECDM_ACR	18	C3C4D4
ECDM_ACRN	0	
ECDM_CNSW	0	
ECDM_CNSW_HDR	0	
ECDM_CNSW_LEN	C	14
ECDM_CNSW_LIST	C	
ECDM_CNSW_MNUM	8	
ECDM_CNSW_SIZE	4	
ECDM_CNSW_TYPE	0	
ECDM_DSP	0	
ECDM_DSP_ALERTPCT	10	
ECDM_DSP_ALRT	11	10
ECDM_DSP_CLIM	11	80
ECDM_DSP_CURRDSSIZE	14	
ECDM_DSP_DLIM	11	40
ECDM_DSP_ERR	11	
ECDM_DSP_INTR	11	20
ECDM_DSP_LEN	18	1C
ECDM_DSP_MAXDSSIZE	18	
ECDM_DSP_QD	8	
ECDM_DSP_QLIM	C	
ECDM_DSP_SIZE	4	
ECDM_DSP_TYPE	0	
ECDM_HDR	0	
ECDM_HDR_LEN	12	14

Table 394. Cross Reference for IEEZB887 (continued)

Name	Offset	Hex Tag
ECDM_HDR_SIZE	8	
ECDM_INFO	0	
ECDM_INFO_ACTIVE	10	80
ECDM_INFO_ALTGRP	48	
ECDM_INFO_ALTGRP_VALID	D	40
ECDM_INFO_ASID	E	
ECDM_INFO_AUTH	14	
ECDM_INFO_AUTO	11	20
ECDM_INFO_AUTOACT	68	
ECDM_INFO_AUTOACT_NOTAVAIL	D	2
ECDM_INFO_AUTOACT_SUSP	D	4
ECDM_INFO_AUTOACT_VALID	D	8
ECDM_INFO_CNID	8	
ECDM_INFO_CONS	14	20
ECDM_INFO_CSYS	40	
ECDM_INFO_DOM	12	
ECDM_INFO_DOMALL	12	80
ECDM_INFO_DOMNONE	12	20
ECDM_INFO_DOMNORM	12	40
ECDM_INFO_FLG1	D	
ECDM_INFO_HC	11	40
ECDM_INFO_INTIDS	15	80
ECDM_INFO_IO	14	40
ECDM_INFO_JOBID	38	
ECDM_INFO_JOBINFO_VALID	D	10
ECDM_INFO_JOBNM	30	
ECDM_INFO_KEY	18	
ECDM_INFO_LEN	68	70
ECDM_INFO_LVBC	13	4
ECDM_INFO_LVCE	13	20
ECDM_INFO_LVE	13	10
ECDM_INFO_LVI	13	8
ECDM_INFO_LVIA	13	40
ECDM_INFO_LVW	13	80
ECDM_INFO_MASTER	14	10
ECDM_INFO_MIGID	C	
ECDM_INFO_MIGID_VALID	D	20
ECDM_INFO_MLVL	13	
ECDM_INFO_MNJB	11	10

Table 394. Cross Reference for IEEZB887 (continued)

Name	Offset	Hex Tag
ECDM_INFO_MNSS	11	4
ECDM_INFO_MNST	11	8
ECDM_INFO_MSCP_ALL	11	2
ECDM_INFO_NO_MSCP	11	1
ECDM_INFO_PD	10	40
ECDM_INFO_ROUT	58	
ECDM_INFO_RSV1	11	80
ECDM_INFO_RTFLG	11	
ECDM_INFO_RTFLG2	15	
ECDM_INFO_SIZE	4	
ECDM_INFO_STFLG	10	
ECDM_INFO_SWTO	50	
ECDM_INFO_SWTO_VALID	D	80
ECDM_INFO_SYS	14	80
ECDM_INFO_SYSCONS	10	20
ECDM_INFO_SYSNM	20	
ECDM_INFO_TERM	28	
ECDM_INFO_TYPE	0	
ECDM_INFO_UNKNIDS	15	40
ECDM_MSCP	0	
ECDM_MSCP_HDR	0	
ECDM_MSCP_LEN	C	14
ECDM_MSCP_LIST	C	
ECDM_MSCP_MNUM	8	
ECDM_MSCP_SIZE	4	
ECDM_MSCP_TYPE	0	
ECDM_NENT	10	
ECDM_SIZE	C	
ECDM_SUMM	0	
ECDM_SUMM_ACTIVE	D	80
ECDM_SUMM_CNSW	C	20
ECDM_SUMM_CONS_SIZE	8	
ECDM_SUMM_DSP	C	10
ECDM_SUMM_FLGS	C	
ECDM_SUMM_FLG1	C	
ECDM_SUMM_FLG2	D	
ECDM_SUMM_INFO	C	80
ECDM_SUMM_LEN	10	18
ECDM_SUMM_MSCP	C	40

Table 394. Cross Reference for IEEZB887 (continued)

Name	Offset	Hex Tag
ECDM_SUMM_NAME	10	
ECDM_SUMM_SIZE	4	
ECDM_SUMM_TYPE	0	
ECDM_TYPE_CNSW	18	40
ECDM_TYPE_DSP	18	80
ECDM_TYPE_INFO	18	10
ECDM_TYPE_MSCP	18	20
ECDM_TYPE_SUMM	18	8
ECDM_VERID	18	10
ECDM_VERS	4	
ECDM_VERS_HBB7730	18	A
ECDM_VERS_HBB7750	18	10
ECDM_VERS1	18	1
ECDM_VERS3	18	3

## IEEZB888 information

### IEEZB888 programming interface information

IEEZB888 is a programming interface.

### IEEZB888 heading information

<b>Common name:</b>	IEEQEMCS Return and Reason Codes
<b>Macro ID:</b>	IEEZB888
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Master Scheduler (SC1B8)
<b>Eye-catcher ID:</b>	Offset: N/A Length: N/A
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: No Auxiliary Storage: No Subpool: Caller's Key: Caller's Data Space: No Residency: Any
<b>Size:</b>	N/A
<b>Created by:</b>	IEEQEMCS
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	Mapping of IEEQEMCS Return and Reason Codes

## IEEZB888 mapping

Table 395. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
IEEZB888_1; IEEQEMCS Return and Reason Code definitions					
	....	....		IEEQE_RC_OK	"X'00000000" Meaning: EMCS consoles have been found. In the case of a REQUEST type of SUMMARY, INFO, or FULL, the output buffer was sufficient to hold all of the information for the consoles meeting the search criteria. Action: None required.
	....	.1..		IEEQE_RC_NOCONS	"X'00000004" Meaning: No EMCS consoles meet the specified filters. Action: None required.
	....	1...		IEEQE_RC_NOSTOR	"X'00000008" Meaning: Insufficient return buffer storage to complete the query operation. Action: Refer to the action provided with the specific reason code.
	....	.1..		IEEQE_RS_TOKSZCONS	"X'00000004" Meaning: A token and recommended buffer size have been returned in TOKEN and RECSIZE. Also, some console information has been returned in the output buffer. Action: After processing the information returned in the console buffer, issue IEEQEMCS again with the token that was returned by this call to IEEQEMCS so that more console information may be returned.
	....	1...		IEEQE_RS_TOKSZNOCONS	"X'00000008" Meaning: A token and recommended buffer size have been returned in TOKEN and RECSIZE. The output buffer is too small to return any EMCS consoles. Action: Allocate a new buffer that is at least the size returned in RECSIZE, and issue IEEQEMCS again with the new buffer and the token returned on the previous IEEQEMCS call. The recommended buffer size returned in RECSIZE is sufficient to hold only one console. It may be necessary to obtain a buffer larger than that to hold all of the consoles returned by IEEQEMCS.
	...1	..1.		IEEQE_RS_NOTOKSZRET	"X'00000012" Meaning: TOKEN and RECSIZE parameters were not coded on the macro invocation, so IEEQEMCS could not return a recommended buffer size to the caller. The buffer size specified by BUFSIZE was not sufficient to hold all of the consoles returned by IEEQEMCS. Action: Issue IEEQEMCS again with the TOKEN and RECSIZE parameters.
	...1	..1.		IEEQE_RC_INVTK	"X'00000012" Meaning: Invalid token in parameter list. Action: Issue IEEQEMCS again with a correct token or a token of zeros.
	...1	.11.		IEEQE_RC_INVPL	"X'00000016" Meaning: Invalid parameter list. Action: Refer to the action provided with the specific reason code.



Table 395. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		IEEQE_RS_INVACRN	"X'00000004'" Meaning: The acronym in the parameter list was invalid. Action: Correct the acronym in the parameter list and issue IEEQEMCS again.
		.... 1...		IEEQE_RS_INVADDR	"X'00000008'" Meaning: An output address is invalid. An ABEND occurred while trying to access storage at an address specified in the parameter list, possibly because that storage is not accessible by the caller, or the storage does not exist. Action: Correct the invalid address in the parameter list and issue IEEQEMCS again.
		...1 ..1.		IEEQE_RS_INVBUFSIZEADDR	"X'00000012'" Meaning: The length of the buffer in the parameter list was invalid. Action: Correct the buffer length in the parameter list and issue IEEQEMCS again.
		...1 .11.		IEEQE_RS_INVLGTH	"X'00000016'" Meaning: The length of the parameter list is invalid. Action: Correct the length in the parameter list and issue IEEQEMCS again.
		..1. ....		IEEQE_RS_INVVERS	"X'00000020'" Meaning: The version specified in the parameter list is invalid. Action: Correct the version in the parameter list and issue IEEQEMCS again.
		..1. .1..		IEEQE_RS_INVFUNC	"X'00000024'" Meaning: The REQUEST type specified in the parameter list is not a valid REQUEST type. Action: Correct the REQUEST type in the parameter list and issue IEEQEMCS again.
		..1. 1...		IEEQE_RS_INVSTAT	"X'00000028'" Meaning: The STATUS specified in the parameter list is not a valid STATUS type. Action: Correct the STATUS in the parameter list and issue IEEQEMCS again.
		..11 ..1.		IEEQE_RS_INVAUTH	"X'00000032'" Meaning: The command authority specified in the parameter list is not a valid command authority type. Action: Correct the AUTH in the parameter list and issue IEEQEMCS again.
		..11 .11.		IEEQE_RS_INVDOM	"X'00000036'" Meaning: The DOM attribute specified in the parameter list is not a valid DOM attribute type. Action: Correct the DOM in the parameter list and issue IEEQEMCS again.
		.1.. ....		IEEQE_RS_INCONSIST	"X'00000040'" Meaning: A set of parameters specified in the parameter list conflict with each other. Action: Correct the parameter list to not have conflicting parameters and issue IEEQEMCS again.
		.1.. .1..		IEEQE_RS_INVATTR	"X'00000044'" Meaning: The routing attributes specified in the parameter list are not valid routing attribute types. Action: Correct the ATTR field in the parameter list and issue IEEQEMCS again.

Table 395. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
	.11.	.1..		IEEQE_RC_SYSERR	"X'00000064'" Meaning: System Error. This return code is for IBM diagnostic purposes only. Action: Record the return and reason codes and supply it to the appropriate IBM support personnel.
	....	.1..		IEEQE_RS_SYSABEND	"X'00000004'" Meaning: An ABEND occurred during processing. This reason code is for IBM diagnostic purposes only. Action: Record the return and reason codes and supply it to the appropriate IBM support personnel.
	....	1...		IEEQE_RS_SYSERR	"X'00000008'" Meaning: An error occurred during processing. This reason code is for IBM diagnostic purposes only. Action: Record the return and reason codes and supply it to the appropriate IBM support personnel.

Table 396. Cross Reference for IEEZB888

Name	Offset	Hex	Tag
IEEQE_RC_INVPL	0		16
IEEQE_RC_INV TOK	0		12
IEEQE_RC_NOCONS	0		4
IEEQE_RC_NOSTOR	0		8
IEEQE_RC_OK	0		0
IEEQE_RC_SYSERR	0		64
IEEQE_RS_INCONSIST	0		40
IEEQE_RS_INVACRN	0		4
IEEQE_RS_INVADDR	0		8
IEEQE_RS_INVATTR	0		44
IEEQE_RS_INVAUTH	0		32
IEEQE_RS_INVBUFSIZEADDR	0		12
IEEQE_RS_INVDOM	0		36
IEEQE_RS_INVFUNC	0		24
IEEQE_RS_INVLGTH	0		16
IEEQE_RS_INVSTAT	0		28
IEEQE_RS_INVVERS	0		20
IEEQE_RS_NOTOKSZRET	0		12
IEEQE_RS_SYSABEND	0		4
IEEQE_RS_SYSERR	0		8
IEEQE_RS_TOKSZCONS	0		4
IEEQE_RS_TOKSZNOCONS	0		8

## IEEZB889 information

### IEEZB889 programming interface information

IEEZB889 is a programming interface.

### IEEZB889 heading information

<b>Common name:</b>	IEECMDS Buffer Mapping
<b>Macro ID:</b>	IEEZB889
<b>DSECT name:</b>	CMDS
<b>Owning component:</b>	Master Scheduler (SC1B8)
<b>Eye-catcher ID:</b>	CMDS Offset: 4 Length: 4
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: No Auxiliary Storage: No Subpool: Caller's Key: Caller's Data Space: No Residency: Any
<b>Size:</b>	Variable CMDS_HDR -- X'0030' bytes CMDS_ENTRY -- X'00B0' bytes
<b>Created by:</b>	IEECMDS
<b>Pointed to by:</b>	Set up by caller, pointed to by Register 1 during IEECMDS processing
<b>Serialization:</b>	None
<b>Function:</b>	Mapping of Command Data returned by Query/Remove Command Service (IEECMDS)

### IEEZB889 mapping

Table 397. Structure CMDS\_HDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMDS_HDR	Command Data Header Mapping
0	(0)	CHARACTER	4	CMDS_ACRN	Eyecatcher
4	(4)	BITSTRING	4	CMDS_VERS	Version
8	(8)	SIGNED	4	CMDS_HDR_SIZE	Size of Header
12	(C)	SIGNED	4	CMDS_SIZE	Size of entire data buffer
16	(10)	SIGNED	4	CMDS_NUMENT	Number of command entries in the output buffer
20	(14)	SIGNED	4	CMDS_NUM_MTCH	Number of commands which match input filters
24	(18)	SIGNED	4	CMDS_NUM_MTCHE	Number of executing commands which match input filters

Table 397. Structure CMDS\_HDR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	SIGNED	4	CMDS_NUM_MTCWH	Number of waiting commands which match input filters
32	(20)	SIGNED	4	CMDS_NUM_TOTAL	Total number of attached commands in the system
36	(24)	SIGNED	4	CMDS_NUM_TOTE	Total number of attached commands executing
40	(28)	SIGNED	4	CMDS_NUM_TOTW	Total number of attached commands waiting
44	(2C)	CHARACTER	4		Reserved
44	(2C)	X'30'	0	CMDS_HDR_LEN	"*-CMDS_HDR"

Table 398. Structure CMDS\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CMDS_ENTRY	Command ENTRY block
0	(0)	SIGNED	4	CMDS_ENTRY_SIZE	Size of the CMDS_ENTRY block
4	(4)	BITSTRING	2	CMDS_ENTRY_FLGS	Flag bytes
4	(4)	BITSTRING	1	CMDS_ENTRY_FLG1	Flag byte 1

## Bit definitions:

		1... ....		CMDS_ENTRY_EXECUTING	"X'80'" Command is executing
		.1.. ....		CMDS_ENTRY_WAITING	"X'40'" Command is/was waiting for execution
		..1. ....		CMDS_ENTRY_REMOVED	"X'20'" REQUEST was REMOVE, command is removed
5	(5)	BITSTRING	1	CMDS_ENTRY_FLG2	Flag byte 2
5	(5)	BITSTRING	1		Reserved
6	(6)	CHARACTER	2	CMDS_ENTRY_RSVD1	Reserved
8	(8)	CHARACTER	8	CMDS_ENTRY_TIME	Time stamp (STCK) when command was issued (if waiting) or was attached (if executing)
16	(10)	CHARACTER	4	CMDS_ENTRY_CLASS	Command Class
20	(14)	CHARACTER	4	CMDS_ENTRY_ID	Command ID
24	(18)	CHARACTER	8	CMDS_ENTRY_JOB	Jobname of issuer
32	(20)	CHARACTER	4	CMDS_ENTRY_ASID	ASID of issuer
36	(24)	CHARACTER	8	CMDS_ENTRY_NAME	Command name
44	(2C)	ADDRESS	4	CMDS_ENTRY_TCB	TCB address of executing cmd
48	(30)	CHARACTER	126	CMDS_ENTRY_TEXT	Command text
174	(AE)	CHARACTER	2	CMDS_ENTRY_RSVD2	Reserved
174	(AE)	X'D4C4E2'	0	CMDS_ACR	"C'CMDS'" Eyecatcher
174	(AE)	X'30'	0	CMDS_HEADER_LENGTH	"48" Length of header section
174	(AE)	X'B0'	0	CMDS_ENTRY_LENGTH	"176" Length of each entry

## Version numbers

		.... ...1		CMDS_VERS1	"X'00000001'" Version number
		.... ...1		CMDS_VERID	"X'00000001'" Current version number

## Return and Reason Codes

Table 398. Structure CMDS\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ....		CMDS_RC_OK	"X'00000000" Meaning: Matching commands have been found. In the case of a REQUEST type of INFO or REMOVE, the output buffer was sufficient to hold all of the information for the commands meeting the search criteria. Action: None required.
		.... .1..		CMDS_RC_NOCMDS	"X'00000004" Meaning: No commands meet the specified filters. Action: None required.
		.... 1...		CMDS_RC_NOSTOR	"X'00000008" Meaning: Insufficient return buffer storage to complete the query operation. Action: Refer to the action provided with the specific reason code.
		.... .1..		CMDS_RS_SOMECMDS	"X'00000004" Meaning: The output buffer is too small to contain all requested information, but does contain the information for one or more commands. Action: The count of matching commands has been returned. Adjust the buffer size so that it is at least as large as the count multiplied by the the length of an entry, plus the length of the header. Constants CMDS_HEADER_LENGTH and CMDS_ENTRY_LENGTH represent these amounts.
		.... 1...		CMDS_RS_NOCMDS	"X'00000008" Meaning: The output buffer is too small to contain the information for even one command. Action: The count of matching commands has been returned. Adjust the buffer size so that it is at least as large as the count multiplied by the the length of an entry, plus the length of the header. Constants CMDS_HEADER_LENGTH and CMDS_ENTRY_LENGTH represent these amounts.
		...1 ....		CMDS_RC_INVPL	"X'00000010" Meaning: Invalid parameter list. Action: Refer to the action provided with the specific reason code.
		.... .1..		CMDS_RS_INVACRN	"X'00000004" Meaning: The acronym in the parameter list was invalid. Action: Correct the acronym in the parameter list and issue IEECMDS again.
		.... 1...		CMDS_RS_INVADDR	"X'00000008" Meaning: An output address is invalid. An ABEND occurred while trying to access storage at an address specified in the parameter list, possibly because that storage is not accessible by the caller, or the storage does not exist. Action: Correct the invalid address in the parameter list and issue IEECMDS again.
		.... 11..		CMDS_RS_INVBUFFER	"X'0000000C" Meaning: The address or length of the buffer in the parameter list was invalid. Action: Correct the buffer length in the parameter list and issue IEECMDS again.
		...1 ....		CMDS_RS_INVLGTH	"X'00000010" Meaning: The length of the parameter list is invalid. Action: Correct the length in the parameter list and issue IEECMDS again.

Table 398. Structure CMDS\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 .1..		CMDS_RS_INVVERS	"X'00000014'" Meaning: The version specified in the parameter list is invalid. Action: Correct the version in the parameter list and issue IEECMD5 again.
		...1 1...		CMDS_RS_INVFUNC	"X'00000018'" Meaning: The REQUEST type specified in the parameter list is not a valid REQUEST type. Action: Correct the REQUEST type in the parameter list and issue IEECMD5 again.
		...1 11..		CMDS_RS_INVCLASS	"X'0000001C'" Meaning: The CLASS specified in the parameter list is not a valid CLASS name. Action: Correct the CLASS in the parameter list and issue IEECMD5 again.
		..1. ....		CMDS_RS_INVID	"X'00000020'" Meaning: The ID specified in the parameter list is not a valid ID value. The ID value must be a decimal number in EBCDIC (printable) characters. Action: Correct the ID in the parameter list and issue IEECMD5 again.
		.1.. ....		CMDS_RC_SYSERR	"X'00000040'" Meaning: System Error. This return code is for IBM diagnostic purposes only. Action: Record the return and reason codes and supply it to the appropriate IBM support personnel.
		.... .1..		CMDS_RS_SYSABEND	"X'00000004'" Meaning: An ABEND occurred during processing. This reason code is for IBM diagnostic purposes only.
		.... 1...		CMDS_RS_SYSERR	"X'00000008'" Meaning: An error occurred during processing. This reason code is for IBM diagnostic purposes only.
174	(AE)	BITSTRING	0	CMDS_RC_CMD_NOT_ABENDABLE	"X'0000F001'" Meaning: MarkCMDSAbend has been requested but could not be processed since the command is marked non-abendable. Action: None
174	(AE)	X'B0'	0	CMDS_ENTRY_LEN	"*-CMDS_ENTRY"

Table 399. Cross Reference for IEEZB889

Name	Offset	Hex Tag
CMDS_ACR	AE	D4C4E2
CMDS_ACRN	0	
CMDS_ENTRY	0	
CMDS_ENTRY_ASID	20	
CMDS_ENTRY_CLASS	10	
CMDS_ENTRY_EXECUTING	4	80
CMDS_ENTRY_FLGS	4	
CMDS_ENTRY_FLG1	4	
CMDS_ENTRY_FLG2	5	
CMDS_ENTRY_ID	14	
CMDS_ENTRY_JOB	18	

Table 399. Cross Reference for IEEZB889 (continued)

Name	Offset	Hex Tag
CMDS_ENTRY_LEN	AE	B0
CMDS_ENTRY_LENGTH	AE	B0
CMDS_ENTRY_NAME	24	
CMDS_ENTRY_REMOVED	4	20
CMDS_ENTRY_RSVD1	6	
CMDS_ENTRY_RSVD2	AE	
CMDS_ENTRY_SIZE	0	
CMDS_ENTRY_TCB	2C	
CMDS_ENTRY_TEXT	30	
CMDS_ENTRY_TIME	8	
CMDS_ENTRY_WAITING	4	40
CMDS_HDR	0	
CMDS_HDR_LEN	2C	30
CMDS_HDR_SIZE	8	
CMDS_HEADER_LENGTH	AE	30
CMDS_NUM_MTCH	14	
CMDS_NUM_MTCHE	18	
CMDS_NUM_MTCHW	1C	
CMDS_NUM_TOTAL	20	
CMDS_NUM_TOTE	24	
CMDS_NUM_TOTW	28	
CMDS_NUMENT	10	
CMDS_RC_CMD_NOT_ABENDABLE	AE	F001
CMDS_RC_INVPL	AE	10
CMDS_RC_NOCMDS	AE	4
CMDS_RC_NOSTOR	AE	8
CMDS_RC_OK	AE	0
CMDS_RC_SYSERR	AE	40
CMDS_RS_INVACRN	AE	4
CMDS_RS_INVADDR	AE	8
CMDS_RS_INVBUFFER	AE	C
CMDS_RS_INVCLASS	AE	1C
CMDS_RS_INVFUNC	AE	18
CMDS_RS_INVID	AE	20
CMDS_RS_INVLGTH	AE	10
CMDS_RS_INVVERS	AE	14
CMDS_RS_NOCMDS	AE	8
CMDS_RS_SOMECMDS	AE	4
CMDS_RS_SYSABEND	AE	4

Table 399. Cross Reference for IEEZB889 (continued)

Name	Offset	Hex Tag
CMDS_RS_SYSERR	AE	8
CMDS_SIZE	C	
CMDS_VERID	AE	1
CMDS_VERS	4	
CMDS_VERS1	AE	1

## IEFALCXT information

### IEFALCXT programming interface information

IEFALCXT is a programming interface.

### IEFALCXT heading information

<b>Common name:</b>	IEF_ALLC_EVENT exit parameter list
<b>Macro ID:</b>	IEFALCXT
<b>DSECT name:</b>	NONE
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	ALCXT Offset: 0 Length: 6
<b>Storage attributes:</b>	Subpool: 230 Key: 1 Residency: Any
<b>Size:</b>	40 for ALCXT + 12 for ALCXT_dataArea + 8 for DDlist
<b>Created by:</b>	IEFAB421
<b>Pointed to by:</b>	Reg1 which points to a word holding its pointer on entry to the IEF_ALLC_EVENT exit.
<b>Serialization:</b>	None
<b>Function:</b>	Contains area for parmlist of IEF_ALLC_EVENT

### IEFALCXT mapping

Table 400. Structure ALCXT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ALCXT	
0	(0)	CHARACTER	6	ALCXT_ID	Eye-catcher ALCXT
6	(6)	SIGNED	2	ALCXT_VERSION	version
8	(8)	SIGNED	2	ALCXT_LENGTH	length
10	(A)	CHARACTER	8	ALCXT_JOBNAME	Jobname
18	(12)	CHARACTER	8	ALCXT_STEPNAME	Stepname
26	(1A)	CHARACTER	8	ALCXT_PROCTESTNAME	Proc Stepname



Table 400. Structure ALCXT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
34	(22)	SIGNED	2	ALCXT_FN	exit function
36	(24)	ADDRESS	4	ALCXT_DATA@	pointer to ALCXT data area
36	(24)	X'28'	0	ALCXT_LEN	"*-ALCXT"

Table 401. Structure ALCXT\_DATAAREA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ALCXT_DATAAREA	ALCXT data area
0	(0)	SIGNED	4	ALCXT_BATCHBEGINDATA	Data for BatchBegin Function
0	(0)	CHARACTER	12	ALCXT_BATCHENDDATA	Data for BatchEnd Function
0	(0)	CHARACTER	8		
8	(8)	SIGNED	4	ALCXT_BATCHRC	Retcode at end of Batch request
0	(0)	CHARACTER	8	ALCXT_DYNBEGINDATA	Data for Dynalloc-Begin function
0	(0)	CHARACTER	8	ALCXT_DYNBEGIN_DDNAME	DDname for Dynalloc-Begin
0	(0)	CHARACTER	12	ALCXT_DYNENDDATA	Data for Dynalloc-End function
0	(0)	CHARACTER	8	ALCXT_DYNEND_DDNAME	DDname for Dynalloc- End
8	(8)	SIGNED	4	ALCXT_DYNRC	Retcode at the end of Dynalloc
0	(0)	SIGNED	4	ALCXT_ALLOCTIONABENDED	Data for AllocationABENDED function
0	(0)	CHARACTER	8	ALCXT_CONCATDATA	Data for concatenation event
0	(0)	SIGNED	4	ALCXT_CONCATDDNUMBER	Number of DDnames being concatenated
4	(4)	ADDRESS	4	ALCXT_CONCATDATA@	Pointer to ALCXT_DDList
0	(0)	CHARACTER	8	ALCXT_DECONCATDATA	Data for deconcatenation event
0	(0)	SIGNED	4	ALCXT_DECONCATDDNUMBER	Number of DDnames being deconcatenated
4	(4)	ADDRESS	4	ALCXT_DECONCATDATA@	Pointer to ALCXT_DDList
0	(0)	CHARACTER	12	ALCXT_BATCHUNALLOCDATA	Data for Batch Unallocate
0	(0)	CHARACTER	8		
8	(8)	SIGNED	4	ALCXT_BATCHUNALLOC_RC	Batch Unallocation RC
0	(0)	CHARACTER	12	ALCXT_DYNUNALLOCDATA	Data for Dynamic Unallocate
0	(0)	CHARACTER	8	ALCXT_DYNUNALLOC_DD	Dynamic Unallocate DDN
8	(8)	SIGNED	4	ALCXT_DYNUNALLOC_RC	Dynamic Unallocation RC
0	(0)	SIGNED	4	ALCXT_RECOVERYPREWAITDATA	Data for RecoveryPreWait
0	(0)	SIGNED	4	ALCXT_RECOVERYPOSTWAITDATA	Data for RecoveryPostWait
12	(C)	X'C'	0	ALCXT_DATAAREA_LEN	"*-ALCXT_DATAAREA"

Table 402. Structure ALCXT\_DDLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ALCXT_DDLIST	
0	(0)	CHARACTER	8	ALCXT_DENTRY	
0	(0)	CHARACTER	8	ALCXT_DDNAME	List of DDnames
CONSTANTS					
0	(0)	X'1'	0	KALCXT_VERSION_1	"1" version number
0	(0)	X'1'	0	KALCXT_BATCHBEGIN	"1" Batch request- Begin function
0	(0)	X'2'	0	KALCXT_BATCHEND	"2" Batch request- End function
0	(0)	X'3'	0	KALCXT_DYNBEGIN	"3" dynalloc request Begin function

Table 402. Structure ALCXT\_DDLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'4'	0	KALCXT_DYNEND	"4" dynalloc request End function
0	(0)	X'5'	0	KALCXT_ALLOCATIONABENDED	"5" Allocation Abended function
0	(0)	X'6'	0	KALCXT_DYNCONCAT	"6" Concatenate DD function
0	(0)	X'7'	0	KALCXT_DYNDECONCAT	"7" Deconcatenate DD function
0	(0)	X'8'	0	KALCXT_BATCHUNALLOC	"8" Unallocation (batch)
0	(0)	X'9'	0	KALCXT_DYNUNALLOC	"9" Unallocation (Dynamic)
0	(0)	X'A'	0	KALCXT_RECOVERYPREWAIT	"10" Recovery Allocation is about to enter a wait
0	(0)	X'B'	0	KALCXT_RECOVERYPOSTWAIT	"11" Recovery Allocation has just completed a wait
0	(0)	X'0'	0	KALCXT_GOODRC	"0" Good Retcode in Allocation
0	(0)	X'4'	0	KALCXT_FAILRC	"4" Failure Retcode in Allocation
0	(0)	X'8'	0	ALCXT_DDLIST_LEN	"*-ALCXT_DDLIST"

Table 403. Cross Reference for IEFALCXT

Name	Offset	Hex	Tag
ALCXT	0		
ALCXT_ALLOCATIONABENDED	0		
ALCXT_BATCHBEGINDATA	0		
ALCXT_BATCHENDDATA	0		
ALCXT_BATCHRC	8		
ALCXT_BATCHUNALLOC_RC	8		
ALCXT_BATCHUNALLOCDDATA	0		
ALCXT_CONCATDATA	0		
ALCXT_CONCATDATA@	4		
ALCXT_CONCATDDNUMBER	0		
ALCXT_DATA@	24		
ALCXT_DATAAREA	0		
ALCXT_DATAAREA_LEN	C		C
ALCXT_DENTRY	0		
ALCXT_DDLIST	0		
ALCXT_DDLIST_LEN	0		8
ALCXT_DDNAME	0		
ALCXT_DECONCATDATA	0		
ALCXT_DECONCATDATA@	4		
ALCXT_DECONCATDDNUMBER	0		
ALCXT_DYNBEGIN_DDNAME	0		
ALCXT_DYNBEGINDDATA	0		
ALCXT_DYNEND_DDNAME	0		
ALCXT_DYNENDDDATA	0		
ALCXT_DYNRC	8		

Table 403. Cross Reference for IEFALCXT (continued)

Name	Offset	Hex Tag
ALCXT_DYNUNALLOC_DD	0	
ALCXT_DYNUNALLOC_RC	8	
ALCXT_DYNUNALLOCDATA	0	
ALCXT_FN	22	
ALCXT_ID	0	
ALCXT_JOBNAME	A	
ALCXT_LEN	24	28
ALCXT_LENGTH	8	
ALCXT_PROCTESTNAME	1A	
ALCXT_RECOVERYPOSTWAITDATA	0	
ALCXT_RECOVERYPREWAITDATA	0	
ALCXT_STEPNAME	12	
ALCXT_VERSION	6	
KALCXT_ALLOCATIONABENDED	0	5
KALCXT_BATCHBEGIN	0	1
KALCXT_BATCHEND	0	2
KALCXT_BATCHUNALLOC	0	8
KALCXT_DYNBEGIN	0	3
KALCXT_DYNCONCAT	0	6
KALCXT_DYNDECONCAT	0	7
KALCXT_DYNEND	0	4
KALCXT_DYNUNALLOC	0	9
KALCXT_FAILRC	0	4
KALCXT_GOODRC	0	0
KALCXT_RECOVERYPOSTWAIT	0	B
KALCXT_RECOVERYPREWAIT	0	A
KALCXT_VERSION_1	0	1

## IEFCITUX information

### IEFCITUX heading information

<b>Common name:</b>	Converter/Interpreter User Exit Trace Record Mapping
<b>Macro ID:</b>	IEFCITUX
<b>DSECT name:</b>	TUX
<b>Owning component:</b>	Converter/Interpreter - CI (SC1B9)
<b>Eye-catcher ID:</b>	None

**Storage attributes:** Subpool: 0  
Key: 1  
Residency: Any

**Size:** 160 (decimal)  
FREQUENCY =  
2 per IEFUJV invocation while GTF is active for the id. There are 2 invocations to IEFUJV from the Converter and 1 invocation to IEFUJV from the Interpreter.

**Created by:** Converter and Interpreter when GTF is active for ID=X'F63'

**Pointed to by:** Presented as GTF trace records

**Serialization:** None

**Function:** This macro maps the record used in the GTF tracing of the IEFUJV exit

## IEFCITUX mapping

Table 404. Structure TUX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	160	TUX	
0	(0)	CHARACTER	8	TUXORIGN	Name of module
8	(8)	CHARACTER	6	TUXSTATE	State of trace record
14	(E)	CHARACTER	4	TUXRC15	Return code from UJV exit
18	(12)	CHARACTER	24	TUXUJVP	IEFUJV parameter list
42	(2A)	CHARACTER	36	TUXSMFP	SMF common exit parameter list
78	(4E)	CHARACTER	80	TUXJCLIM	80-byte JCL image
158	(9E)	CHARACTER	1	TUXFUNCD	Function code
159	(9F)	CHARACTER	1	TUXJESOP	JES options to converter

## IEFCNPRM information

### IEFCNPRM heading information

**Common name:** Converter Parameter List

**Macro ID:** IEFCNPRM

**DSECT name:** CNPRM, CNPREXIT

**Owning component:** Converter (SC1B9)

**Eye-catcher ID:** CNPR  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: Any private area subpool  
Key: Key of caller  
Residency: Above or Below

**Size:** 144 decimal (for version=3)  
= 120 decimal (for version=2)  
FREQUENCY = 1 per instance of a converter

**Created by:** Caller of the MVS Converter

**Pointed to by:** Register 1 contains the address of CNPRM upon entry to the Converter, CNPRXLST points to CNPREXIT when exits are included.

**Serialization:** None

**Function:** Maps the input to the MVS Converter.

## IEFCNPRM mapping

Table 405. Structure CNPRM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	144	CNPRM	
0	(0)	CHARACTER	8	CNPRHDR	
0	(0)	CHARACTER	4	CNPRACRO	Acronym "CNPR"
4	(4)	UNSIGNED	2	CNPRVERS	Version number
6	(6)	UNSIGNED	2	CNPRLNTH	Length
8	(8)	ADDRESS	4	CNPRENV	Address of existing converter environment
12	(C)	SIGNED	4	CNPRREAS	Converter reason code, further defines register 15 return code
16	(10)	CHARACTER	4	CNPRSSYS	Name of the subsystem that selected this job
20	(14)	UNSIGNED	4	CNPRCONS	Console Identifier
Converter Option Switches					
24	(18)	BITSTRING	1	CNPROPTS	Converter options switches (Same offset as NELOPSWT in the IEFNEL)
		1... ....		CNPRSMF	If zero, indicates a started task
		.1... ....		CNPRTSOP	Term=TS has been specified and overrides all other parms on the DD statement
		..1. ....		CNPRNOWT	Do not wait for JCLLIB to be recalled
		...1 ....		CNPRWEE	Wait for JCLLIB if data set is exclusively ENQueued
		.... 1...		CNPRNEW	New format parameter list
		.... .1..		CNPRTERM	Terminate Converter Env.
		.... ..1.		CNPRRGNX	0=CNPRREG contains default size of entire region. 1=CNPRREG contains default below-the-line region and CNPRREGA contains default above-the-line region
		.... ...1		*	Reserved
25	(19)	BITSTRING	1	CNPRJBFL	JOB level flags
		1111 ....		*	Reserved
		.... 1...		CNPRJCLI	JCLLIB processed
		.... .111		*	Reserved
26	(1A)	CHARACTER	2	*	Reserved
28	(1C)	CHARACTER	16	CNPRACBS	ACBs passed to the converter

Table 405. Structure CNPRM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	ADDRESS	4	CNPRTXT	Address of open ACB for the MVS/CI text data set
32	(20)	ADDRESS	4	CNPRMSG	Address of open ACB for message data set
36	(24)	ADDRESS	4	CNPRJCL	Address of open ACB for spooled JCL data set
40	(28)	ADDRESS	4	CNPRSTMT	Address of open ACB for statement image data set
44	(2C)	ADDRESS	4	CNPRJMR	Address of job management record
48	(30)	ADDRESS	4	CNPRPROC	Address of open DCB for procedure library
52	(34)	ADDRESS	4	CNPRXLST	Address of list of special converter exits mapped by CNPREXIT
56	(38)	ADDRESS	4	CNPRSSYM	Address of a string of data in SET statement format defining system symbolics and associated values
60	(3C)	SIGNED	2	CNPRSYML	Length of string of system symbolics
The following 24 bytes are set by the JES according to their whims (such as the CIPARM in the JES3 inish deck.) Do not assume you use any bits or bytes between CNPRPARM and CNPRMLV2.					
62	(3E)	BITSTRING	1	CNPRPARM	Parameter options
		1111 ....		*	Reserved
		.... 1...		*	Reserved
		.... .1..		CNPRSWAA	User SWA Above indicator
		.... ..1.		CNPRACCT	Account number required
		.... ...1		CNPRPGMN	Programmer name required
63	(3F)	CHARACTER	2	CNPRJPTY	Default JOB priority
65	(41)	CHARACTER	8	CNPRTIME	Default for JOB time limit
65	(41)	CHARACTER	6	CNPRMIN	Default minutes
71	(47)	CHARACTER	2	CNPRSEC	Default seconds
73	(49)	CHARACTER	5	CNPRREG	Region size including the unit of K or M (e.g. 2048M or 0512K)
78	(4E)	CHARACTER	1	CNPRCMDS	Command Disposition 0 - Execute command 1 - Display and execute command 2 - Display and request disp 3 - Ignore command
79	(4F)	CHARACTER	1	CNPRLABL	Label Processing 0 - BLP will be treated as NL 1 - BLP will be treated as bypass label
80	(50)	CHARACTER	4	CNPRAUTH	MCS command authority
84	(54)	CHARACTER	2	CNPRMSGL	Message Level Defaults
84	(54)	CHARACTER	1	CNPRMLV1	Default for printing JCL statements
85	(55)	CHARACTER	1	CNPRMLV2	Default for printing messages
86	(56)	CHARACTER	1	CNPRMCLS	Default message class
87	(57)	BITSTRING	1	CNPR_JOBCLASS_ATTR	JOBCLASS attributes flags
		1... ....		CNPR_DSENQSHR_AUTO	DSENQSHR JOBCLASS attribute AUTO
		.1.. ....		CNPR_DSENQSHR_ALLOW	DSENQSHR JOBCLASS attribute ALLOW NOTE: ALLOW is the default for HBB7790 installations. If this is a downlevel installation, it will assume the value of DISALLOW (which is 0). Therefore, the function will always be disabled on HBB7780 & below level installations

Table 405. Structure CNPRM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		CNPR_SYSSYM_ALLOW	SYSSYM JOBCLASS attribute Use of system symbols in batch job JCL is allowed
		...1 ....		CNPR_GDGBIAS_STEP	GDGBIAS JOBCLASS attribute of STEP
		.... 1111		*	Reserved and available
88	(58)	CHARACTER	8	CNPRJDVT	JDVT name if the default JDVT is not to be used. Nulls indicate to use the default
96	(60)	ADDRESS	4	CNPREXTP	Address of parameter area to be communicated to the exits out of the converter supported by JES. Value is passed in the third word of the parameter list to the Post Scan Text Exit
100	(64)	BITSTRING	1	CNPROPT1	Parameter options (not passed to exit) Copied as a byte, not individually
		1... ....		CNPRSWTO	Suppress WTO messages
		.1.. ....		CNPRDJLI	Disable JCLLIB
		..1. ....		CNPRDIF	Disable IF THEN ELSE
		...1 ....		CNPRDINC	Disable INCLUDE
		.... 1...		CNPR1STM	Converter is to process only the first statement
		.... .1..		CNPRMERG	Converter is to merge two input statements
101	(65)	CHARACTER	1	*	Reserved
102	(66)	UNSIGNED	2	CNPRASID	Address Space IDentifier to be used to find START symbolic parameters
104	(68)	ADDRESS	4	CNPRSYMT	Address of system symbolic table to be used by the Converter
108	(6C)	ADDRESS	4	CNPRJSYM	Address of JCL symbols, mapped by IEFSJSYD, to be used by the Converter (Note that JCL SET statements within the JCL will override these values.)
112	(70)	SIGNED	4	CNPBCP_LEVEL	Minimum level of MVS BCP required to execute functions in this job or 0 (no specific level req'd). This is output from Converter. Values used here correspond to values defined for ECVTPSEQ.
116	(74)	ADDRESS	4	CNPJOBCORRELATOR_PTR	Job correlator for this job, used to uniquely track individual jobs. Correlators are 64 bytes long.
Version 3 (or greater) extension. Exists if CNPRRGNX = 1 and/or CNPRVERS => 3.					
120	(78)	CHARACTER	6	CNPRREGA	Above-the-line region size including the unit K, M, or G (e.g. 16383K). Valid when CNPRRGNX = 1.
126	(7E)	CHARACTER	18	*	Reserved

Table 406. Structure CNPREXIT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	CNPREXIT	
0	(0)	CHARACTER	8	CNPRXHDR	Exit list header
0	(0)	SIGNED	2	CNPRXLEN	Length of all exit entries

Table 406. Structure CNPREXIT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	CHARACTER	6	*	Reserved
8	(8)	CHARACTER	8	CNPRXENT(*)	Array of exit list entries
8	(8)	CHARACTER	1	CNPRLKID	Linkage Identification
9	(9)	CHARACTER	1	CNPREXID	Exit Identification
10	(A)	CHARACTER	6	CNPREXEP	Entry point name specified
10	(A)	CHARACTER	2	*	
12	(C)	ADDRESS	4	CNPREXAD	Entry point address specified

Table 407. Structure JES\_OPEN\_SYSIN\_PARMLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_OPEN_SYSIN_PARMLST	
0	(0)	SIGNED	4	JES_OPEN_SEQ_NUM	DS Seq number
4	(4)	ADDRESS	4	JES_OPEN_TU_PTR	Pointer to the statement TU string
8	(8)	CHARACTER	8	*	Reserved

Table 408. Structure JES\_PUT\_SYSIN\_PARMLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_PUT_SYSIN_PARMLST	
0	(0)	ADDRESS	4	JES_PUT_RECORD@	Rec Addr
4	(4)	CHARACTER	12	*	Reserved

Table 409. Structure JES\_CLOSE\_SYSIN\_PARMLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_CLOSE_SYSIN_PARMLST	
0	(0)	CHARACTER	16	*	Reserved

Table 410. Constants for IEFCNPRM

Len	Type	Value	Name	Description
4	DECIMAL	3	CNPRCVER	Current version number
4	DECIMAL	3	CNPR@L9	Version number for @L9
4	DECIMAL	2	CNPR\$01	Version number for \$01 cleanup
1	HEX	80	CNPRXNAM	Entry point specified by name
1	HEX	20	CNPRXADD	Entry point specified as an address
1	HEX	00	CNPRXNOP	Ignore this exit entry
1	HEX	80	CNPRTXTX	ID for Post Scan Text Exit
1	HEX	40	CNPROPEN	ID for Open SYSIN DS exit@L4A
1	HEX	20	CNPRPUT	ID for put sysin DS exit
1	HEX	10	CNPRCLOS	ID for Close SYSIN exit.
1	HEX	09	CNPRUJVX	IEFUJV with environment information

Table 411. Cross Reference for IEFCNPRM

Name	Offset	Hex Tag
CNPBCP_LEVEL	70	
CNPJOBBCORRELATOR_PTR	74	



Table 411. Cross Reference for IEF CNPRM (continued)

Name	Offset	Hex Tag
CNPR_DSENQSHR_ALLOW	57	40
CNPR_DSENQSHR_AUTO	57	80
CNPR_GDGBIAS_STEP	57	10
CNPR_JOBCLASS_ATTR	57	
CNPR_SYSSYM_ALLOW	57	20
CNPRACBS	1C	
CNPRACCT	3E	02
CNPRACRO	0	
CNPRASID	66	
CNPRAUTH	50	
CNPRCMDS	4E	
CNPRCONS	14	
CNPRDIF	64	20
CNPRDINC	64	10
CNPRDJLI	64	40
CNPRENV	8	
CNPREXAD	C	
CNPREXEP	A	
CNPREXID	9	
CNPREXIT	0	
CNPREXTP	60	
CNPRHDR	0	
CNPRJBFL	19	
CNPRJCL	24	
CNPRJCLI	19	08
CNPRJDVT	58	
CNPRJMR	2C	
CNPRJPTY	3F	
CNPRJSYM	6C	
CNPRLABL	4F	
CNPRLKID	8	
CNPRLNTH	6	
CNPRM	0	
CNPRMCLS	56	
CNPRMERG	64	04
CNPRMIN	41	
CNPRMLV1	54	
CNPRMLV2	55	
CNPRMSG	20	

Table 411. Cross Reference for IEF CNPRM (continued)

Name	Offset	Hex Tag
CNPRMSG	54	
CNPRNEW	18	08
CNPRNOWT	18	20
CNPROPTS	18	
CNPROPT1	64	
CNPRPARAM	3E	
CNPRPGMN	3E	01
CNPRPROC	30	
CNPRREAS	C	
CNPRREG	49	
CNPRREGA	78	
CNPRRGX	18	02
CNPRSEC	47	
CNPRSMF	18	80
CNPRSSYM	38	
CNPRSSYS	10	
CNPRSTMT	28	
CNPRSWAA	3E	04
CNPRSWTO	64	80
CNPRSYML	3C	
CNPRSYMT	68	
CNPRTERM	18	04
CNPRTIME	41	
CNPRTSOP	18	40
CNPRTXT	1C	
CNPRVERS	4	
CNPRWEE	18	10
CNPRXENT	8	
CNPRXHR	0	
CNPRXLEN	0	
CNPRXLST	34	
CNPR1STM	64	08
JES_CLOSE_SYSIN_PARMLST	0	
JES_OPEN_SEQ_NUM	0	
JES_OPEN_SYSIN_PARMLST	0	
JES_OPEN_TU_PTR	4	
JES_PUT_RECORD@	0	
JES_PUT_SYSIN_PARMLST	0	

# IEFDELT information

## IEFDELT programming interface information

IEFDELT is a programming interface.

## IEFDELT heading information

<b>Common name:</b>	Eligible Device Table (EDT) Latch Table
<b>Macro ID:</b>	IEFDELT
<b>DSECT name:</b>	ELT
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	ELT Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: N/A Auxiliary Storage: N/A Subpool: 230 Key: Caller key Residency: ANY
<b>Size:</b>	ELT -- X'0040' bytes
<b>Created by:</b>	IEFEIS01
<b>Pointed to by:</b>	BASED()
<b>Serialization:</b>	None
<b>Function:</b>	Maps the output areas for the EDTINFO RTNEDTLT service.

## IEFDELT mapping

Table 412. Structure ELT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ELT	
0	(0)	CHARACTER	32	ELT_HEADER	ELT header
0	(0)	CHARACTER	4	ELT_ID	Eye-catcher 'ELT '
4	(4)	BITSTRING	1	ELT_VERSION	Version number
5	(5)	BITSTRING	1	ELT_SUBPOOL	Subpool where the ELT resides
6	(6)	CHARACTER	1	ELT_FLAGS	Flags
Bit definitions:					
	1... ....			ELT_EDTVAL	"X'80'" EDT for this ELT exists
The original/intermediate/final ELT flags are only set when transitioning from one EDT to another. If no EDT transition is occurring, none will be set.					
	.1.. ....			ELT_ORIGINAL	"X'40'" EDT for this ELT is the original EDT

Table 412. Structure ELT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		ELT_INTERMED	"X'20'" EDT for this ELT is the intermediate EDT
		...1 ....		ELT_FINAL	"X'10'" EDT for this ELT is the final EDT
7	(7)	CHARACTER	1		Reserved
8	(8)	SIGNED	4	ELT_LENGTH	Total length of ELT (ELT header + ELT entries)
12	(C)	SIGNED	4	ELT_COUNT	Count of valid latch entries
16	(10)	SIGNED	4	ELT_BINDS	Total number of address spaces bound on the EDT
20	(14)	CHARACTER	12		Reserved
32	(20)	CHARACTER	32	ELT_ENTRY	ELT entry
32	(20)	SIGNED	2	ELT_ASID	Asid where latch exists
34	(22)	CHARACTER	2		Reserved
36	(24)	CHARACTER	8	ELT_JOBNAME	Jobname holding latch
44	(2C)	SIGNED	4	ELT_BIND_COUNT	Count of binds for this address space
48	(30)	CHARACTER	16		Reserved
Constants					
48	(30)	X'D3E340'	0	ELT_ELT	"C'ELT '" ELT control block ID
48	(30)	X'1'	0	ELT_VER	"1" ELT control block version number
48	(30)	X'1'	0	ELT_CUR_VER	"1" ELT current version number
48	(30)	X'E6'	0	ELT_SPN	"230" ELT subpool number
48	(30)	X'F'	0	ELT_MAX_ENT	"15" Maximum of 15 latch entries
48	(30)	X'40'	0	ELT_LEN	"*-ELT"

Table 413. Cross Reference for IEFDELT

Name	Offset	Hex Tag
ELT	0	
ELT_ASID	20	
ELT_BIND_COUNT	2C	
ELT_BINDS	10	
ELT_COUNT	C	
ELT_CUR_VER	30	1
ELT_EDTVAL	6	80
ELT_ELT	30	D3E340
ELT_ENTRY	20	
ELT_FINAL	6	10
ELT_FLAGS	6	
ELT_HEADER	0	
ELT_ID	0	
ELT_INTERMED	6	20
ELT_JOBNAME	24	
ELT_LEN	30	40

Table 413. Cross Reference for IEFDELT (continued)

Name	Offset	Hex Tag
ELT_LENGTH	8	
ELT_MAX_ENT	30	F
ELT_ORIGINAL	6	40
ELT_SPN	30	E6
ELT_SUBPOOL	5	
ELT_VER	30	1
ELT_VERSION	4	

## IEFDISMP information

### IEFDISMP programming interface information

IEFDISMP is a programming interface.

### IEFDISMP heading information

<b>Common name:</b>	DD Service Output Mapping
<b>Macro ID:</b>	IEFDISMP
<b>DSECT name:</b>	DVAR DVAR_DEVICE_LIST
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: Determined by caller of IEFDDSRV or 0, if not specified Key: Key of caller Data Space: No Residency: ABOVE if permitted by subpool, otherwise BELOW
<b>Size:</b>	Variable, contained in DVAR_LENGTH
<b>Created by:</b>	IEFADSRV
<b>Pointed to by:</b>	Address is stored into the caller's parameter list
<b>Serialization:</b>	Caller should ensure the returned UCBs are not dynamically deleted.
<b>Function:</b>	Maps the output of IEFDDSRV RETRIEVE DEVENTRY and EXTRACT TYPE=DEVIOENTRY requests

## IEFDISMP mapping

Table 414. Structure DVAR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DVAR	Device area
0	(0)	SIGNED	4	(0)	
0	(0)	X'0'	0	DVAR_HEADER	"*" Device area header
0	(0)	BITSTRING	1	DVAR_SUBPOOL	Subpool in which the device area resides
1	(1)	BITSTRING	3	DVAR_LENGTH	Length of the device area
4	(4)	SIGNED	4	DVAR_NUM_DVLIST	Number of device lists returned in the device area
4	(4)	X'8'	0	DVAR_HEADER_END	"*" End of device area header
4	(4)	X'8'	0	DVAR_DEVLST_ADDR_ENTRY	"*" Device list address entry
8	(8)	ADDRESS	4	DVAR_DEVLST_ADDR	Device list address
8	(8)	X'C'	0	DVAR_DEVLST_ADDR_ENTRY_END	"*" End of device list address entry

Table 415. Structure DVAR\_DEVICE\_LIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DVAR_DEVICE_LIST	Device list
0	(0)	X'0'	0	DVAR_LIST_HEADER	"*" Device list header
0	(0)	SIGNED	4	DVAR_NUM_DVENT	Number of entries in the device list
0	(0)	X'4'	0	DVAR_LIST_HEADER_END	"*" End of device area header
0	(0)	X'4'	0	DVAR_LIST_ENTRY	"*" Device list entry
4	(4)	ADDRESS	4	DVAR_DEV_ADDR	UCB address
4	(4)	X'8'	0	DVAR_ENTRY_END	"*" End of device list entry

Table 416. Structure DEVIODEVLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DEVIODEVLIST	DevIO list
0	(0)	X'0'	0	DEVIODEVLISTHEADER	"*" DevIO list header
0	(0)	SIGNED	4	DEVIONUMENTRIES	Number of entries in the DevIO list
0	(0)	X'4'	0	DEVIODEVLISTHEADEREND	"*" End of device area header
0	(0)	X'4'	0	DEVIODEVLISTENTRY	"*" DevIO list entry
4	(4)	ADDRESS	4	DEVIUUCBPTR	UCB address
8	(8)	BITSTRING	8	DEVIOLBLOCKSIZE	Block size
16	(10)	SIGNED	4	DEVIODEXCPCOUNT	# of EXCPs issued against this device
20	(14)	SIGNED	4	DEVIODECONNECTTIME	Device connect time
20	(14)	X'18'	0	DEVIODEVLISTENTRYEND	"*" End of DevIO list entry
Constants					
20	(14)	X'8'	0	DVAR_HDR_LEN	"DVAR_HEADER_END-DVAR_HEADER" Length of the device area header

Table 416. Structure DEVIODEVLST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	X'4'	0	DVAR_DEVLST_ADDRENT_LEN	"DVAR_DEVLST_ADDR_ENTRY_END-DVAR_DEVLST_ADD"
0	(0)	X'4'	0	DVAR_DEVLST_HDR_LEN	"DVAR_LIST_HEADER_END-DVAR_LIST_HEADER" Length of device list header
0	(0)	X'4'	0	DVAR_DEVENT_LEN	"DVAR_ENTRY_END-DVAR_LIST_ENTRY" Length of one device list entry
0	(0)	X'4'	0	DEVIODEVLSTHEADERLENGTH	"DevIODevListHeaderEnd-DevIODevListHeader" Length of DevIO list header
0	(0)	X'14'	0	DEVIODEVLSTENTRYLENGTH	"DevIODevListEntryEnd-DevIODevListEntry" Length of DevIO list entry

Table 417. Cross Reference for IEFDISMP

Name	Offset	Hex	Tag
DEVIOWBLOCKSIZE	8		
DEVIOCONNECTTIME	14		
DEVIODEVLST	0		
DEVIODEVLSTENTRY	0		4
DEVIODEVLSTENTRYEND	14		18
DEVIODEVLSTENTRYLENGTH	0		14
DEVIODEVLSTHEADER	0		0
DEVIODEVLSTHEADEREND	0		4
DEVIODEVLSTHEADERLENGTH	0		4
DEVIOEXCPCOUNT	10		
DEVIONUMENTRIES	0		
DEVIOUCBPTR	4		
DVAR	0		
DVAR_DEV_ADDR	4		
DVAR_DEVENT_LEN	0		4
DVAR_DEVICE_LIST	0		
DVAR_DEVLST_ADDR	8		
DVAR_DEVLST_ADDR_ENTRY	4		8
DVAR_DEVLST_ADDR_ENTRY_END	8		C
DVAR_DEVLST_ADDRENT_LEN	14		4
DVAR_DEVLST_HDR_LEN	0		4
DVAR_ENTRY_END	4		8
DVAR_HDR_LEN	14		8
DVAR_HEADER	0		0
DVAR_HEADER_END	4		8
DVAR_LENGTH	1		
DVAR_LIST_ENTRY	0		4
DVAR_LIST_HEADER	0		0

Table 417. Cross Reference for IEFDISMP (continued)

Name	Offset	Hex Tag
DVAR_LIST_HEADER_END	0	4
DVAR_NUM_DVENT	0	
DVAR_NUM_DVLIST	4	
DVAR_SUBPOOL	0	

## IEFDISRC information

### IEFDISRC programming interface information

IEFDISRC is a programming interface.

### IEFDISRC heading information

<b>Common name:</b>	DD Service Return and Reason Codes
<b>Macro ID:</b>	IEFDISRC
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Main Storage: N/A Virtual Storage: N/A Auxiliary Storage: N/A Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Defines the return and reason codes used by DD service.

### IEFDISRC mapping

Table 418. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IEFDDSRV RETURN CODES (decimal)					
0	(0) X'0'		0	DDSRV_SUCCESS	"0" X'000' IEFDDSRV completed successfully
0	(0) X'0'		0	DDSRV_FUNCTION_COMPLETE	"0" X'000' Function completed
0	(0) X'4'		0	DDSRV_WARNING	"4" X'004' Function completed with a warning



Table 418. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'8'	0	DDSRV_INVALID_PARAMETERS	"8" X'008' Invalid input parameters to IEFDDSRV
0	(0)	X'C'	0	DDSRV_REQUEST_FAIL	"12" X'00C' IEFDDSRV request failed
0	(0)	X'10'	0	DDSRV_RCVENT	"16" X'010' IEFDDSRV recovery entered
0	(0)	X'0'	0	DDSRV_RSN_OK	"0" X'000' Success reason code
0	(0)	X'0'	0	DDSRV_RCN_OK	"DDSRV_RSN_OK" X'000' Success reason code. Defined to be consistent with the definitions in the section below. DDSRV_RSN_OK is preferred
IEFDDSRV REASON CODES (decimal) RETURN CODE DDSRV_WARNING (decimal)					
0	(0)	X'4'	0	DDSRV_INSUFFICIENT_LENGTH	"4" X'004' Insufficient AREALEN to contain the output. The necessary length is in the DVAR_LENGTH field of the output area
RETURN CODE DDSRV_INVALID_PARAMETERS (decimal)					
0	(0)	X'4'	0	DDSRV_BLANK_DDNAME	"4" X'004' The specified or obtained DD name is blank
0	(0)	X'8'	0	DDSRV_ZERO_DSAB	"8" X'008' The specified or obtained DSAB pointer is zero
0	(0)	X'C'	0	DDSRV_ZERO_DCB	"12" X'00C' A zero DCB pointer was specified
0	(0)	X'10'	0	DDSRV_INVALID_SUBPOOL	"16" X'010' An invalid subpool was specified
0	(0)	X'14'	0	DDSRV_ZERO_ACB	"20" X'014' A zero ACB pointer was specified
0	(0)	X'18'	0	DDSRV_BAD_PARM	"24" X'018' Bad input parms
0	(0)	X'18'	0	DDSRV_INPUT_DSAB_ABOVE	"24" X'018' The input DSAB resides above the 16MB line but LOC=ANY was not specified
0	(0)	X'18'	0	DDSRV_DSAB_ABOVE	"DDSRV_INPUT_DSAB_ABOVE" X'018' The input DSAB resides above the 16MB line but LOC=ANY was not specified. Defined to be consistent with the definitions in the section below.
0	(0)	X'20'	0	DDSRV_MISMATCHED_VERSLEN	"32" X'020' VERSION and parameter list length were inconsistent
0	(0)	X'24'	0	DDSRV_UNSUPPORTED_VERSFUNC	"36" X'024' The parameter list version does not support the IEFDDSRV function requested
0	(0)	X'28'	0	DDSRV_UNSUPPORTED_VERSION	"40" X'028' The parameter list version is higher than is supported by IEFDDSRV
0	(0)	X'2C'	0	DDSRV_UNSUPPORTED_FUNCTION	"44" X'02C' The function in the parameter list is not supported by IEFDDSRV
0	(0)	X'30'	0	DDSRV_AREALEN_MINIMUM_LENGTH	"48" X'030' The AREALEN is smaller than the minimum length
0	(0)	X'34'	0	DDSRV_UNSUPPORTED_ENVIRONMENT	"52" X'034' Invalid environment for the specified function (cross-memory).
0	(0)	X'38'	0	DDSRV_MUTUALLY_EXCLUSIVE_FEATURES	

Table 418. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"56" X'038' Two feature parameters were specified that are mutually exclusive
RETURN CODE DDSRV_REQUEST_FAIL (decimal)					
0	(0) X'4'		0	DDSRV_INVALID_DDNAME	"4" X'004' The specified or obtained DD name is invalid
0	(0) X'8'		0	DDSRV_INVALID_DSAB	"8" X'008' The specified or obtained DSAB pointer is invalid
0	(0) X'C'		0	DDSRV_TIOTENQ_FAIL	"12" X'00C' Failed to obtain TIOT resource or resource was held with shared control when exclusive control of the resource was required
0	(0) X'10'		0	DDSRV_LOCK_FAIL	"16" X'010' Failed to obtain lock
0	(0) X'14'		0	DDSRV_INVALID_TCB	"20" X'014' The specified TCB pointer does not point to a valid TCB, or points to a TCB that is not valid for this request.
0	(0) X'1C'		0	DDSRV_OBTAINED_DSAB_ABOVE	"28" X'01C' The DSAB obtained from the input DCB/ACB resides above the 16MB line but LOC=ANY was not specified
0	(0) X'20'		0	DDSRV_TCTTIOT_OFFSET_ZERO	"32" X'020' The TCTTIOT offset obtained from the DSAB is zero
0	(0) X'100'		0	DDSRV_DD_IS_OPEN	"256" X'100' The DD name cannot be modified while the DD is open
0	(0) X'104'		0	DDSRV_FEATURE_NOT_ENABLED	"260" X'104' The requested feature has not been enabled by the installation
0	(0) X'108'		0	DDSRV_INVALID_NEWDDNAME	"264" X'108' The requested new DDNAME does not follow the documented rules for a DDNAME
0	(0) X'10C'		0	DDSRV_DD_IN_CONCATENATION	"268" X'10C' The DD to be modified is concatenated to a named DD
0	(0) X'128'		0	DDSRV_DD_VALIDATION_FAILED	"296" X'128' The DD to be modified is in an inconsistent state and cannot be modified.
0	(0) X'12C'		0	DDSRV_FEATURE_ALREADY_SET	"300" X'12C' The requested feature is already set.
0	(0) X'130'		0	DDSRV_DD_NAME_ALREADY_IN_USE	"304" X'130' The requested DDNAME is already in use by another DD.
0	(0) X'134'		0	DDSRV_ASID_1_NOT_ALLOWED	"308" X'134' The requested function is not allowed from ASID 1
0	(0) X'138'		0	DDSRV_INSULATED_DD	"312" X'138' DD was allocated using the insulated allocation TU

Table 419. Cross Reference for IEFDISRC

Name	Offset	Hex Tag
DDSRV_AREALEN_MINIMUM_LENGTH	0	30
DDSRV_ASID_1_NOT_ALLOWED	0	134
DDSRV_BAD_PARM	0	18
DDSRV_BLANK_DDNAME	0	4
DDSRV_DD_IN_CONCATENATION	0	10C
DDSRV_DD_IS_OPEN	0	100

Table 419. Cross Reference for IEFDISRC (continued)

Name	Offset	Hex Tag
DDSRV_DD_NAME_ALREADY_IN_USE	0	130
DDSRV_DD_VALIDATION_FAILED	0	128
DDSRV_DSAB_ABOVE	0	18
DDSRV_FEATURE_ALREADY_SET	0	12C
DDSRV_FEATURE_NOT_ENABLED	0	104
DDSRV_FUNCTION_COMPLETE	0	0
DDSRV_INPUT_DSAB_ABOVE	0	18
DDSRV_INSUFFICIENT_LENGTH	0	4
DDSRV_INSULATED_DD	0	138
DDSRV_INVALID_DDNAME	0	4
DDSRV_INVALID_DSAB	0	8
DDSRV_INVALID_NEWDDNAME	0	108
DDSRV_INVALID_PARAMETERS	0	8
DDSRV_INVALID_SUBPOOL	0	10
DDSRV_INVALID_TCB	0	14
DDSRV_LOCK_FAIL	0	10
DDSRV_MISMATCHED_VERSLEN	0	20
DDSRV_MUTUALLY_EXCLUSIVE_FEATURES	0	38
DDSRV_OBTAINED_DSAB_ABOVE	0	1C
DDSRV_RCN_OK	0	0
DDSRV_RCVENT	0	10
DDSRV_REQUEST_FAIL	0	C
DDSRV_RSN_OK	0	0
DDSRV_SUCCESS	0	0
DDSRV_TCTTIOT_OFFSET_ZERO	0	20
DDSRV_TIOTENQ_FAIL	0	C
DDSRV_UNSUPPORTED_ENVIRONMENT	0	34
DDSRV_UNSUPPORTED_FUNCTION	0	2C
DDSRV_UNSUPPORTED_VERSFUNC	0	24
DDSRV_UNSUPPORTED_VERSION	0	28
DDSRV_WARNING	0	4
DDSRV_ZERO_ACB	0	14
DDSRV_ZERO_DCB	0	C
DDSRV_ZERO_DSAB	0	8

## IEFDISXT information

### IEFDISXT programming interface information

IEFDISXT is a programming interface.

## IEFDISXT heading information

**Common name:** IEF\_ALLC\_MOD exit parameter list

**Macro ID:** IEFDISXT

**DSECT name:** DISXT\_PARMLIST

**Owning component:** Allocation (SC1B4)

**Eye-catcher ID:** DISXT  
Offset: 0  
Length: 6

**Storage attributes:** Virtual Storage: YES  
Subpool: 230  
Key: 1

**Size:** 56 bytes  
DISXT\_PARMLIST -- X'0038' bytes

**Created by:** IEFADSMO

**Pointed to by:** Register 1 on entry

**Serialization:** None.

**Function:** Contains area for parmlist of IEF\_ALLC\_MOD

## IEFDISXT mapping

Table 420. Structure DISXT\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DISXT_PARMLIST	
0	(0)	CHARACTER	6	DISXT_ID	Eyecatcher - 'DISXT '
6	(6)	SIGNED	2	DISXT_VERSION	Version of this parmlist
8	(8)	SIGNED	2	DISXT_LEN	Length of the parmlist
10	(A)	SIGNED	2	DISXT_FN	Modify function
12	(C)	CHARACTER	8	DISXT_JOBNAME	Job name
20	(14)	CHARACTER	8	DISXT_PROCSTEPNAME	the name of the step in the procedure
28	(1C)	CHARACTER	8	DISXT_STEPNAME	job step name
36	(24)	CHARACTER	20	DISXT_PARMS	modify parameters
36	(24)	CHARACTER	20	DISXT_MODIFYALLOCATION	For modify allocation
36	(24)	ADDRESS	4	DISXT_MOD_DSAB@	address of the DSAB of the affected DD
40	(28)	CHARACTER	8	DISXT_OLD_DDNAME	DD name before modify
48	(30)	CHARACTER	8	DISXT_NEW_DDNAME	DD name after modify
Modify function constants					
48	(30)	X'1'	0	KDISXT_VERSION_1	"1"
DISXT_len (modify function) constants					
48	(30)	X'1'	0	KDISXT_MODDDDNAME	"1"
48	(30)	X'38'	0	DISXT_PARMLIST_LEN	"*-DISXT_PARMLIST"

Table 421. Cross Reference for IEFDISXT

Name	Offset	Hex Tag
DISXT_FN	A	
DISXT_ID	0	
DISXT_JOBNAME	C	
DISXT_LEN	8	
DISXT_MOD_DSAB@	24	
DISXT_MODIFYALLOCATION	24	
DISXT_NEW_DDNAME	30	
DISXT_OLD_DDNAME	28	
DISXT_PARMLIST	0	
DISXT_PARMLIST_LEN	30	38
DISXT_PARAMS	24	
DISXT_PROCTESTNAME	14	
DISXT_STEPNAME	1C	
DISXT_VERSION	6	
KDISXT_MODDDNAME	30	1
KDISXT_VERSION_1	30	1

## IEFDOKEY information

### IEFDOKEY programming interface information

IEFDOKEY is a programming interface.

### IEFDOKEY heading information

<b>Common name:</b>	Dynamic OUTPUT Key Mapping
<b>Macro ID:</b>	IEFDOKEY
<b>DSECT name:</b>	None
<b>Owning component:</b>	Dynamic Output (BB131)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A

**Function:**

This macro maps the Dynamic OUTPUT keys. The keys are passed to Dynamic OUTPUT in text units when Dynamic OUTPUT is invoked via the OUTADD macro. Text unit keys are two bytes in length. The keys are defined in this mapping as EQUates.

**IEFDOKEY mapping**

Table 422. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
%GOTO DOKEY2; KEYS FOR Dynamic OUTPUT					
		..1. .111		DOADDRES	"X'0027'" ADDRESS
		.1.1 ...1		DOAFPPRM	"X'0051'" AFPPARMS
		.1.. 1...		DOAFPST	"X'0048'" AFPPARMS
		..1. 1...		DOBUILD	"X'0028'" BUILDING
		.... ...1		DOBURST	"X'0001'" BURST
		.... ..1.		DOCHARS	"X'0002'" CHARS
		.... ..11		DOCKPTLI	"X'0003'" CKPTLINE
		.... .1..		DOCKPTPA	"X'0004'" CKPTPAGE
		.... .1.1		DOCKPTSE	"X'0005'" CKPTSEC
		.... .11.		DOCLASS	"X'0006'" CLASS
		..11 1.1.		DOCOLORM	"X'003A'" COLORMAP
		.... .111		DOCOMPAC	"X'0007'" COMPACT
		..11 ..1.		DOCOMSET	"X'0032'" COMSETUP
		.... 1...		DOCONTRO	"X'0008'" CONTROL
		.... 1..1		DOCOPIE9	"X'0009'" COPIES
		.... 1.1.		DOCOPIEA	"X'000A'" COPIES (group values)
		.1.1 ..1.		DOCOPYCN	"X'0052'" COPYCNT
0	(0)	BITSTRING	0	DODATAACK	"X'2022'" DATAACK
		.1.1 .1..		DODDNAME	"X'0054'" DDNAME
		.... 1.11		DODEFAULT	"X'000B'" DEFAULT
		..1. 1..1		DODEPT	"X'0029'" DEPT
		.... 11..		DODEST	"X'000C'" DEST
		..1. ..11		DODPAGEL	"X'0023'" DPAGELBL
		..11 11.1		DODUPLEX	"X'003D'" DUPLEX
		.... 11.1		DOFCB	"X'000D'" FCB
		.... 111.		DOFLASE	"X'000E'" FLASH (overlay name)
		.... 1111		DOFLASF	"X'000F'" FLASH (count)
		...1 11.1		DOFORMD	"X'001D'" FORMDEF
		..11 1.11		DOFORMLN	"X'003B'" FORMLEN
		...1 ....		DOFORMS	"X'0010'" FORMS
		.1.. .111		DOFSSDAT	"X'0047'" FSSDATA
		...1 ...1		DOGROUPI	"X'0011'" GROUPID

Table 422. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 .1.		DOINDEX	"X'0012'" INDEX
		..11 111.		DOINTRAY	"X'003E'" INTRAY
		...1 .1..		DOLINDEX	"X'0014'" LINDEX
		...1 .1.1		DOLINECT	"X'0015'" LINECT
		.1.. 1..1		DOMAILBC	"X'0049'" MAILBCC
		.1.. 1.1.		DOMAILCC	"X'004A'" MAILCC
		.1.. 1.11		DOMAILFI	"X'004B'" MAILFILE
		.1.. 11..		DOMAILFR	"X'004C'" MAILFROM
		.1.. 11.1		DOMAILTO	"X'004D'" MAILTO
0	(0)	BITSTRING	0	DOMERGE	"X'8003'" MERGE
		...1 .11.		DOMODIF6	"X'0016'" MODIFY (module name)
		...1 .111		DOMODIF7	"X'0017'" MODIFY (TRC)
		..1. 11.1		DONAME	"X'002D'" NAME
		..1. 1111		DONOTIFY	"X'002F'" NOTIFY
		.1.. ..11		DOXOFSTB	"X'0043'" OFFSETXB
		.1.. ...1		DOXOFSTF	"X'0041'" OFFSETXF
		.1.. .1..		DOYOFSTB	"X'0044'" OFFSETYB
		.1.. ...1		DOYOFSTF	"X'0042'" OFFSETYF
0	(0)	BITSTRING	0	DOOUTBIN	"X'2023'" OUTBIN
		..1. 1.11		DOOUTDB	"X'002B'" OUTDISP - NORMAL
		..1. 11..		DOOUTDC	"X'002C'" OUTDISP - ABNORMAL
		..11 ..11		DOOVFL	"X'0033'" OVERFLOW
		.1.. ....		DOOVRLYB	"X'0040'" OVERLAYB
		..11 1111		DOOVRLYF	"X'003F'" OVERLAYF
		...1 1111		DOPAGEDE	"X'001F'" PAGEDEF
		..1. ...1		DOPIMSG	"X'0021'" PIMSG
		.1.. .1.1		DOPORTNO	"X'0045'" PORTNO
		...1 1...		DOPRMODE	"X'0018'" PRMODE
		..11 1..1		DOPROPTN	"X'0039'" PRTOPTNS
		.1.1 ....		DOPRTATT	"X'0050'" PRTATTRS
		..11 11..		DOPRTERR	"X'003C'" PRTERORR
		..11 1...		DOPRTQUE	"X'0038'" PRTQUEUE
		...1 1..1		DOPRTY	"X'0019'" PRTY
		.1.. 111.		DOPREPLYT	"X'004E'" REPLYTO
		.1.. .11.		DOPRESFMT	"X'0046'" RESFMT
		..11 .111		DOPRETANF	"X'0037'" RETAINF
		..11 .11.		DOPRETANS	"X'0036'" RETAINS
		..11 .1..		DOPRETRYT	"X'0034'" RETRYT
		..11 .1.1		DOPRETRYL	"X'0035'" RETRYL
		..1. .11.		DOPROOM	"X'0026'" ROOM
		..1. .1..		DOPSYSARE	"X'0024'" SYSAREA
		..1. ...1		DOPHRESH	"X'0022'" THRESHLD
		..1. 1.1.		DOPITITLE	"X'002A'" TITLE
		...1 1.1.		DOPTRC	"X'001A'" TRC
		...1 1.11		DOPUCS	"X'001B'" UCS

Table 422. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..11 ...1		DOUSERDA	"X'0031'" USERDATA
		..1. 111.		DOUSERLI	"X'002E'" USERLIB
		.1.. 1111		DOUSERPA	"X'004F'" USERPATH
		...1 11..		DOWRITER	"X'001C'" WRITER

Table 423. Cross Reference for IEFDOKEY

Name	Offset	Hex	Tag
DODDRES	0		27
DOAFPPRM	0		51
DOAFST	0		48
DOBUILD	0		28
DOBURST	0		1
DOCHARS	0		2
DOCKPTLI	0		3
DOCKPTPA	0		4
DOCKPTSE	0		5
DOCLASS	0		6
DOCOLORM	0		3A
DOCOMPAC	0		7
DOCOMSET	0		32
DOCONTRO	0		8
DOCOPIEA	0		A
DOCOPIE9	0		9
DOCOPYCN	0		52
DODATAACK	0		2022
DODDNAME	0		54
DODEFAUL	0		B
DODEPT	0		29
DODEST	0		C
DODPAGEL	0		23
DODUPLEX	0		3D
DOFCB	0		D
DOFLASE	0		E
DOFLASF	0		F
DOFORMD	0		1D
DOFORMLN	0		3B
DOFORMS	0		10
DOFSSDAT	0		47
DOGROUPI	0		11



Table 423. Cross Reference for IEFDOKEY (continued)

Name	Offset	Hex Tag
DOINDEX	0	12
DOINTRAY	0	3E
DOLINDEX	0	14
DOLINECT	0	15
DOMAILBC	0	49
DOMAILCC	0	4A
DOMAILFI	0	4B
DOMAILFR	0	4C
DOMAILTO	0	4D
DOMERGE	0	8003
DOMODIF6	0	16
DOMODIF7	0	17
DONAME	0	2D
DONOTIFY	0	2F
DOOUTBIN	0	2023
DOOUTDB	0	2B
DOOUTDC	0	2C
DOOVFL	0	33
DOOVRLYB	0	40
DOOVRLYF	0	3F
DOPAGEDE	0	1F
DOPIMSG	0	21
DOPORTNO	0	45
DOPRMODE	0	18
DOPROPTN	0	39
DOPRTATT	0	50
DOPRTERR	0	3C
DOPRTQUE	0	38
DOPRTY	0	19
DOREPLYT	0	4E
DORESFMT	0	46
DORETANF	0	37
DORETANS	0	36
DORETRYL	0	35
DORETRYT	0	34
DOROOM	0	26
DOSYSARE	0	24
DOTHRESH	0	22
DOTITLE	0	2A

Table 423. Cross Reference for IEFDOKEY (continued)

Name	Offset	Hex Tag
DOTRC	0	1A
DOUCS	0	1B
DOUSERDA	0	31
DOUSERLI	0	2E
DOUSERPA	0	4F
DOWRITER	0	1C
DOX0FSTB	0	43
DOX0FSTF	0	41
DOY0FSTB	0	44
DOY0FSTF	0	42

## IEFDORC information

### IEFDORC programming interface information

The following fields are **NOT** programming interface information:

- DORCABNA
- DORCABNB
- DORCABNC
- DORCABN1
- DORCABN2
- DORCABN3
- DORCABN4
- DORCABN5
- DORCABN6
- DORCABN7
- DORCABN8
- DORCABN9
- DORCAB12
- DORCAB13
- DORCAB14
- DORCAB15

### IEFDORC heading information

**Common name:** Dynamic Output SVC Reason Codes  
**Macro ID:** IEFDORC  
**DSECT name:** n/a  
**Owning component:** Scheduler JCL Facility (BB131)  
**Eye-catcher ID:** none  
**Storage attributes:** Virtual Storage: n/a (EQU's only)

**Size:** n/a  
**Created by:** n/a  
**Pointed to by:** n/a  
**Serialization:** None  
**Function:** Maps the return codes and reason codes used by Dynamic Output

## IEFDORC mapping

Table 424. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
A 000000-999999 A Add unique parameter list error reason codes. Add unique abend reason codes. A New reason codes for added error checking D Removed dynamic output from JBB2223 A Added dynamic output to HBB3310 A Added reason codes for one use support A New ABEND reason codes for SWB serialization support. A Reason code for invalid TEXT character. D Deleted ABEND reason codes for one use support. A Added additional reason code for one use support A Added support of new reason codes returned from SJF Update A Added reason code DORCZKEY to match SJF Update reason code SJRCZKEY.					
A Added new ABEND reason codes for error in SSI call A Added SHOWHDR %GOTO DORCPLS; Dynamic Output Return Codes					
0	(0)	X'0'	0	DONOERRS	"0" Successful completion
0	(0)	X'4'	0	DOENVERR	"4" Environmental error
0	(0)	X'8'	0	DOREQDNY	"8" Request denied by, or because of, the installation exit
0	(0)	X'C'	0	DOINVPRM	"12" Invalid parameter list
0	(0)	X'10'	0	DOSYSERR	"16" System error
Dynamic Output Reason Codes					
0	(0)	X'0'	0	DORCNOER	"0" X'000' Processing successful
Parameter errors, text units NOTE: These reason codes are always accompanied by a return code of DOINVPRM. These errors are caused by the caller or faulty installation exit text unit modifications					
0	(0)	X'300'	0	DORCIVCH	"768" X'300' Invalid choice specified for parameter
0	(0)	X'301'	0	DORCGMAX	"769" X'301' Numeric parameter exceeds maximum
0	(0)	X'302'	0	DORCLMIN	"770" X'302' Numeric parameter less than minimum
0	(0)	X'303'	0	DORCNUM	"771" X'303' No parameter specified
0	(0)	X'306'	0	DORCNLLN	"774" X'306' Length of level exceeds maximum
0	(0)	X'307'	0	DORCNLNM	"775" X'307' Number of levels exceeds the maximum
0	(0)	X'308'	0	DORCNFCH	"776" X'308' Invalid first character of level

Table 424. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'309'	0	DORCNOCH	"777" X'309' Invalid character other than the first in level in parameter
0	(0)	X'30A'	0	DORCNLIV	"778" X'30A' Invalid specification of levels
0	(0)	X'30B'	0	DORCIVNP	"779" X'30B' Invalid number of parameters
0	(0)	X'30C'	0	DORCIVLN	"780" X'30C' Invalid parameter length
0	(0)	X'30D'	0	DORCNKEY	"781" X'30D' Invalid key
0	(0)	X'30E'	0	DORCDUPK	"782" X'30E' Duplicate key
0	(0)	X'30F'	0	DORCIVKY	"783" X'30F' Key not allowed
0	(0)	X'310'	0	DORCNSLE	"784" X'310' Sublist element not defined
0	(0)	X'311'	0	DORCMTUP	"785" X'311' The maximum number of text unit pointers allowed has been exceeded
0	(0)	X'312'	0	DORCIVTX	"786" X'312' Invalid TEXT character
0	(0)	X'313'	0	DORCISEQ	"787" X'313' Invalid character sequence
0	(0)	X'314'	0	DORCIBIT	"788" X'314' Invalid bits specified in a bitstring parameter
Parameter errors, DOCNP NOTE: If these reason codes are accompanied by a return code of DOREQDNY, then the installation exit has made invalid alterations to the caller's DOCNP. Otherwise, these reason codes will be accompanied by a return code of DOINVPRM, indicating the caller passed an invalid DOCNP.					
0	(0)	X'380'	0	DORCLNIV	"896" X'380' Invalid parameter length in DOCNLEN
0	(0)	X'381'	0	DORCNZF1	"897" X'381' Unused DOCNFNC1 bits not zero
0	(0)	X'382'	0	DORCNZF2	"898" X'382' Unused DOCNFNC2 bits not zero
0	(0)	X'383'	0	DORCNZR1	"899" X'383' Reserved field DOCNRSV1 not zero
0	(0)	X'384'	0	DORCNZR2	"900" X'384' Reserved field DOCNRSV2 not zero
0	(0)	X'385'	0	DORCIVID	"901" X'385' Invalid parameter list identifier in DOCNID
0	(0)	X'386'	0	DORCIVVR	"902" X'386' Invalid parameter list version in DOCNVERS
0	(0)	X'387'	0	DORCNOFN	"903" X'387' No function (i.e. add or delete) requested
0	(0)	X'388'	0	DORCIVFN	"904" X'388' More than one function (i.e. add and delete) requested
0	(0)	X'389'	0	DORCIVTP	"905" X'389' Text unit pointer (DOCNTXTP) specified for a delete request
0	(0)	X'38A'	0	DORCIVEQ	"906" X'38A' Conditional enqueue (DOCNCENQ) specified for a delete request
0	(0)	X'38B'	0	DORCIVNM	"907" X'38B' Invalid descriptor name (DOCNNAME)
0	(0)	X'38C'	0	DORCIVRZ	"908" X'38C' Register pointing to the parameter list pointer is zero
0	(0)	X'38D'	0	DORCIVDZ	"909" X'38D' Pointer to the SVC parameter list (DOCNP) is zero

Table 424. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'38E'	0	DORCIVHB	"910" X'38E' High order bit in parameter list pointer is not zero
0	(0)	X'38F'	0	DORCIVTU	"911" X'38F' Text units required for an add request
0	(0)	X'390'	0	DORCP0C4	"912" X'390' 0C4 ABEND, appears to have occurred while referencing user parameters
0	(0)	X'391'	0	DORCNZR0	"913" X'391' Reserved field DOCNRSV0 not zero
0	(0)	X'392'	0	DORCONEU	"914" X'392' Bit X'40' of byte DOCNFNC2 is on for a delete request
0	(0)	X'393'	0	DORCREUS	"915" X'393' Bit X'20' of byte DOCNFNC2 is on for a delete request
0	(0)	X'394'	0	DORCREON	"916" X'394' DOCNONEU and DOCNREUS must both be on or both be off
Environmental errors					
0	(0)	X'400'	0	DORCGET1	"1024" X'400' GETMAIN unsuccessful in SVC
0	(0)	X'401'	0	DORCEXST	"1025" X'401' Output descriptor specified already exists
0	(0)	X'402'	0	DORCNDES	"1026" X'402' Output descriptor specified does not exist
0	(0)	X'403'	0	DORCBTCH	"1027" X'403' Output descriptor specified was not dynamically created, cannot delete
0	(0)	X'404'	0	DORCESTA	"1028" X'404' Unable to establish recovery environ- ment
0	(0)	X'405'	0	DORCNENQ	"1029" X'405' ENQueue resource unavailable at this time
0	(0)	X'406'	0	DORCNONM	"1030" X'406' No more system generated names can be created, the maximum number allowed are in use
0	(0)	X'407'	0	DORCGET2	"1031" X'407' GETMAIN unsuccessful in SJF
0	(0)	X'408'	0	DORCALTT	"1032" X'408' Caller's text units were altered by another task during dynamic output processing
0	(0)	X'409'	0	DORCALTP	"1033" X'409' Caller's text unit pointers were altered by another task during dynamic output processing
Installation exit caused errors					
0	(0)	X'500'	0	DORCINST	"1280" X'500' Reason code from installation exit out of allowable range
0	(0)	X'501'	0	DORCINRC	"1281" X'501' Return code from installation exit is zero, but reason code is non zero
0	(0)	X'502'	0	DORCINRT	"1282" X'502' Invalid return code from the installation exit
0	(0)	X'503'	0	DORCINKE	"1283" X'503' Return code from installation exit is zero, but returned key in error is nonzero
0	(0)	X'504'	0	DORCZKEY	"1284" X'504' Installation exit modified the text unit keys to include a zero key

Table 424. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
System errors					
0	(0)	X'700'	0	DORCABND	"1792" X'700' ABEND in the Dynamic OUTPUT control routine
0	(0)	X'701'	0	DORCSJAB	"1793" X'701' ABEND in the Scheduler JCL Facility
0	(0)	X'702'	0	DORCXABD	"1794" X'702' ABEND in the Dynamic OUTPUT Installation Exit
ABEND reason codes NOTE: ABENDs are issued when unexpected return or reason codes are received from SJF. The ABEND codes are unique for each situation in which this is detected. Therefore, there may be more than one ABEND reason code for an SJF function.					
0	(0)	X'1'	0	DORCABN1	"0001" X'001' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'2'	0	DORCABN2	"0002" X'002' ABEND issued due to unexpected reason code from SJF UPDATE
0	(0)	X'3'	0	DORCABN3	"0003" X'003' ABEND issued due to unexpected return code from SJF UPDATE
0	(0)	X'4'	0	DORCABN4	"0004" X'004' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'5'	0	DORCABN5	"0005" X'005' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'6'	0	DORCABN6	"0006" X'006' ABEND issued due to unexpected return and/or reason code from SJF DELETE
0	(0)	X'7'	0	DORCABN7	"0007" X'007' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'8'	0	DORCABN8	"0008" X'008' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'9'	0	DORCABN9	"0009" X'009' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'A'	0	DORCABNA	"0010" X'00A' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'B'	0	DORCABNB	"0011" X'00B' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'C'	0	DORCABNC	"0012" X'00C' ABEND issued due to unexpected return code from SJF TERMINATE ABEND codes 0014-0017 are used in One Use SWB support below HBB4410
0	(0)	X'12'	0	DORCAB12	"0018" X'012' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'13'	0	DORCAB13	"0019" X'013' ABEND issued due to unexpected return code from SJF RETURN SWB
0	(0)	X'14'	0	DORCAB14	"0020" X'014' ABEND issued due to an error in an SSI call

Table 424. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'15'	0	DORCAB15	"0021" X'015' ABEND issued due to an error in call to include segment IEFSSVIS

Table 425. Cross Reference for IEFDORC

Name	Offset	Hex Tag
DOENVERR	0	4
DOINVPRM	0	C
DONOERRS	0	0
DORCABNA	0	A
DORCABNB	0	B
DORCABNC	0	C
DORCABND	0	700
DORCABN1	0	1
DORCABN2	0	2
DORCABN3	0	3
DORCABN4	0	4
DORCABN5	0	5
DORCABN6	0	6
DORCABN7	0	7
DORCABN8	0	8
DORCABN9	0	9
DORCAB12	0	12
DORCAB13	0	13
DORCAB14	0	14
DORCAB15	0	15
DORCALTP	0	409
DORCALTT	0	408
DORCBTCH	0	403
DORCDUPK	0	30E
DORCESTA	0	404
DORCEXST	0	401
DORCGET1	0	400
DORCGET2	0	407
DORCGMAX	0	301
DORCIBIT	0	314
DORCINKE	0	503
DORCINRC	0	501
DORCINRT	0	502
DORCINST	0	500

Table 425. Cross Reference for IEFDORC (continued)

Name	Offset	Hex Tag
DORCISEQ	0	313
DORCIVCH	0	300
DORCIVDZ	0	38D
DORCIVEQ	0	38A
DORCIVFN	0	388
DORCIVHB	0	38E
DORCIVID	0	385
DORCIVKY	0	30F
DORCIVLN	0	30C
DORCIVNM	0	38B
DORCIVNP	0	30B
DORCIVRZ	0	38C
DORCIVTP	0	389
DORCIVTU	0	38F
DORCIVTX	0	312
DORCIVVR	0	386
DORCLMIN	0	302
DORCLNIV	0	380
DORCMTUP	0	311
DORCNDES	0	402
DORCNENQ	0	405
DORCNFCH	0	308
DORCNKEY	0	30D
DORCNLIV	0	30A
DORCNLLN	0	306
DORCNLNM	0	307
DORCNNUM	0	303
DORCNOCH	0	309
DORCNOER	0	0
DORCNOFN	0	387
DORCNONM	0	406
DORCNSLE	0	310
DORCNZF1	0	381
DORCNZF2	0	382
DORCNZR0	0	391
DORCNZR1	0	383
DORCNZR2	0	384
DORCONEU	0	392
DORCP0C4	0	390



Table 425. Cross Reference for IEFDORC (continued)

Name	Offset	Hex Tag
DORCREON	0	394
DORCREUS	0	393
DORCSJAB	0	701
DORCXABD	0	702
DORCZKEY	0	504
DOREQDNY	0	8
DOSYSERR	0	10

## IEFDOTUM information

### IEFDOTUM programming interface information

IEFDOTUM is a programming interface.

### IEFDOTUM heading information

<b>Common name:</b>	Dynamic Output Text Unit Mappings
<b>Macro ID:</b>	IEFDOTUM
<b>DSECT name:</b>	DOCNTLST, DOCNUNIT, DOCNTFLD
<b>Owning component:</b>	Dynamic Output (BB131)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Any Key: Caller's key Residency: Any
<b>Size:</b>	1st section: 4 bytes 2nd section: 31 bytes 3rd section: 6 bytes plus a variable-length field at offset 6 4th section: 2 bytes plus a variable-length field at offset 2
<b>Created by:</b>	User of dynamic output services
<b>Pointed to by:</b>	The OUTADD macro, DOCNP
<b>Serialization:</b>	None
<b>Function:</b>	Maps the text units and text unit pointer structures for Dynamic OUTPUT.

### IEFDOTUM mapping

Table 426. Structure DOCNTLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNTLST	Text unit pointer list mapping
0	(0)	SIGNED	4	DOCNTPTR	Text unit pointer

Table 426. Structure DOCNTLST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		DOCNTLT	"X'80'" On for the last text unit pointer

Table 427. Structure DOCNUNIT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNUNIT	Text unit mapping
0	(0)	BITSTRING	2	DOCNTKEY	Key
2	(2)	BITSTRING	2	DOCNTNUM	Number of length/parameter pairs
4	(4)	CHARACTER	1	DOCNTENT(0)	
4	(4)	BITSTRING	2	DOCNTLTH	Length of first or only parameter
6	(6)	CHARACTER	1	DOCNTPAR	First or only parameter

Table 428. Structure DOCNTFLD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNTFLD	Mapping for length/parameter pair
0	(0)	BITSTRING	2	DOCNTLEN	Length of parameter
2	(2)	CHARACTER	1	DOCNTPRM	Parameter

Table 429. Cross Reference for IEFDOTUM

Name	Offset	Hex	Tag
DOCNTENT	4		
DOCNTFLD	0		
DOCNTKEY	0		
DOCNTLEN	0		
DOCNTLST	0		
DOCNTLT	0		80
DOCNTLTH	4		
DOCNTNUM	2		
DOCNTPAR	6		
DOCNTPRM	2		
DOCNTPTR	0		
DOCNUNIT	0		

## IEFENFSC information

### IEFENFSC heading information

<b>Common name:</b>	ENF Schedule SRB Listener Control Block
<b>Macro ID:</b>	IEFENFSC
<b>DSECT name:</b>	ENFSC
<b>Owning component:</b>	Event Notification Facility (BB131)

**Eye-catcher ID:** ENFSC  
Offset: 0  
Length: 6

**Storage attributes:** Subpool: 241  
Key: 0  
Residency: Any

**Size:** 40 bytes (decimal)

**Created by:** IEFENFNM

**Pointed to by:** None

**Serialization:** ENFSC\_USE\_COUNT is used to determine how many users of the ENFSC exist.

**Function:** ENF control block used when a signal request is issued to an event code that has SRBEXIT listeners on the ENF listen element chain. This block holds information that can be accessed by the routine that schedules the SRBs (IEFENFNM), the ENF SRB routine (IEFENFSR), and the SRB resource termination manager (IEFENFPD).

## IEFENFSC mapping

Table 430. Structure ENFSC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	ENFSC	
0	(0)	CHARACTER	6	ENFSC_ID	Eye catcher
6	(6)	UNSIGNED	2	ENFSC_LEN	Control block length
8	(8)	UNSIGNED	1	ENFSC_VERS	Version number
9	(9)	BITSTRING	1	ENFSC_FLAGS	Flag byte
	1... ....			ENFSC_FREEPRM_CODED	When on, the signaller has coded FREEPRM
	.111 1111			ENFSC_RSV1	Reserved
10	(A)	UNSIGNED	1	ENFSC_SUBPOOL	ENFSC subpool
11	(B)	UNSIGNED	1	ENFSC_KEY	ENFSC key
12	(C)	CHARACTER	4	ENFSC_EVENT_CODE	Event code
16	(10)	SIGNED	4	ENFSC_USE_COUNT	The number of users of this control block.
20	(14)	ADDRESS	4	ENFSC_SIGP_ADDR	Address of the signaller's parameter list
24	(18)	SIGNED	4	ENFSC_SIGP_LENGTH	Length of the signaller's parameter list if FREEPRM coded, otherwise zero.
28	(1C)	UNSIGNED	1	ENFSC_SIGP_SUBPOOL	Subpool number of storage holding signaller's parm list if FREEPRM coded, otherwise zero.
29	(1D)	UNSIGNED	1	ENFSC_SIGP_KEY	Key of storage holding signaller's parameter list if FREEPRM coded, otherwise zero.
30	(1E)	SIGNED	2	ENFSCSIGNALLERSHASN	Signaller's HASN
32	(20)	ADDRESS	4	ENFSC_ENSG_ADDR	Address of ENSG parameter list to be provided to listeners

Table 430. Structure ENFSC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
36	(24)	ADDRESS	4	ENFSCSIGNALLERSR14	Signaller's return addr

Table 431. Constants for IEFENFSC

Len	Type	Value	Name	Description
6	CHARACTER	ENFSC	ENFSCID	
1	DECIMAL	2	ENFSCVER	
1	DECIMAL	0	ENFSC_KEY_CONST	
1	DECIMAL	245	ENFSC_SUBPOOL_CONST	

Table 432. Cross Reference for IEFENFSC

Name	Offset	Hex Tag
ENFSC	0	
ENFSC_ENSG_ADDR	20	
ENFSC_EVENT_CODE	C	
ENFSC_FLAGS	9	
ENFSC_FREEPRM_CODED	9	80
ENFSC_ID	0	
ENFSC_KEY	B	
ENFSC_LEN	6	
ENFSC_RSV1	9	7F
ENFSC_SIGP_ADDR	14	
ENFSC_SIGP_KEY	1D	
ENFSC_SIGP_LENGTH	18	
ENFSC_SIGP_SUBPOOL	1C	
ENFSC_SUBPOOL	A	
ENFSC_USE_COUNT	10	
ENFSC_VERS	8	
ENFSCSIGNALLERSHASHN	1E	
ENFSCSIGNALLERSR14	24	

## IEFENFSG information

### IEFENFSG programming interface information

IEFENFSG is a programming interface.

### IEFENFSG heading information

<b>Common name:</b>	ENF Signal Data
<b>Macro ID:</b>	IEFENFSG
<b>DSECT name:</b>	ENSG - ENF signal information
<b>Owning component:</b>	Event Notification Facility (BB131)

**Eye-catcher ID:** ENSG  
Offset: 0  
Length: 4 bytes

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 0, 229, 241, or 255  
Key: 0  
Data Space: No  
Residency: ANY

**Size:** 76 bytes (decimal)

**Created by:** IEFENFNM

**Pointed to by:** Fifth word of the address list pointed to by register 1 on entry to an ENF listen exit

**Serialization:** None

**Function:** Maps signal information provided to ENF listeners by ENF

## IEFENFSG mapping

Table 433. Structure ENSG

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENSG	, ENF-provided input data
0	(0)	SIGNED	4	(0)	
0	(0)	CHARACTER	12	ENSG_HEADER(0)	Header information
0	(0)	CHARACTER	4	ENSGID	Control block identifier (ENSGCID)
4	(4)	SIGNED	2	ENSGVERS	Version number. Current version is ENSGCVER.
6	(6)	SIGNED	2	ENSGLEN	Length of ENSG control block
8	(8)	CHARACTER	4		Reserved
12	(C)	CHARACTER	64	ENSG_SIGNAL_DATA(0)	Information about the signal sent to the listen exit
12	(C)	SIGNED	4	ENSG_EVENT_CODE	Event code
16	(10)	CHARACTER	4	ENSG_QUAL	Event qualifier
20	(14)	CHARACTER	32	ENSG_BITMAP_QUAL	Bit-mapped event qualifier
52	(34)	CHARACTER	1	ENSG_SIGNAL_FLAGS	Flags describing signal
	1... ....			ENSG_FOREIGN_SYSTEM	"X'80'" Signal originated on another system
53	(35)	CHARACTER	3		Reserved
56	(38)	CHARACTER	8	ENSG_SOURCE_SYSTEM_NAME	Name of system where signal originated
64	(40)	CHARACTER	4	ENSG_SOURCE_SYSTEM_TOKEN(0)	XCF token identifying the system where the signal originated. This field contains 0 when sysplex-wide ENF is not available for any reason. When 0, the signal originated on the listening system.
64	(40)	CHARACTER	1	ENSG_SOURCE_SYSTEM_SLOT	XCF slot number of originating system
65	(41)	CHARACTER	3		Reserved (XCF token)

Table 433. Structure ENSG (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
68	(44)	CHARACTER	8		Reserved
68	(44)	X'4C'	0	ENSG_END	"*" End of signal information
Constant values					
68	(44)	X'D5E2C7'	0	ENSGCID	"C'ENSG'" Control block ID value
68	(44)	X'1'	0	ENSGVER1	"1" First version of IEFENFSG
68	(44)	X'1'	0	ENSGCVER	"ENSGVER1" Current version of IEFENFSG

Table 434. Cross Reference for IEFENFSG

Name	Offset	Hex Tag
ENSG	0	
ENSG_BITMAP_QUAL	14	
ENSG_END	44	4C
ENSG_EVENT_CODE	C	
ENSG_FOREIGN_SYSTEM	34	80
ENSG_HEADER	0	
ENSG_QUAL	10	
ENSG_SIGNAL_DATA	C	
ENSG_SIGNAL_FLAGS	34	
ENSG_SOURCE_SYSTEM_NAME	38	
ENSG_SOURCE_SYSTEM_SLOT	40	
ENSG_SOURCE_SYSTEM_TOKEN	40	
ENSGCID	44	D5E2C7
ENSGCVER	44	1
ENSGID	0	
ENSGLEN	6	
ENSGVERS	4	
ENSGVER1	44	1

## IEFENFSP information

### IEFENFSP heading information

<b>Common name:</b>	ENF SRB process area element
<b>Macro ID:</b>	IEFENFSP
<b>DSECT name:</b>	ENFSP
<b>Owning component:</b>	Event Notification Facility (BB131)
<b>Eye-catcher ID:</b>	ENFSP Offset: 0 Length: 6

**Storage attributes:** Subpool: Common, pageable  
Key: 0  
Residency: 64-bit

**Size:** 32 bytes (decimal)  
FREQUENCY = For a given signal, per each SRBEXIT type listener of that signal, one or more chained off of said listener's ENFLS. A chain of ENFSPs will exist if the SRB is in flight as additional signals arrive.

**Created by:** IEFENFNM

**Pointed to by:** 1st element: ENFL\_ENFSP\_First@  
2nd and subsequent elements: ENFSP\_Next and ENFSP\_Prev (set and used by IEFENFSR).  
The anchor cell pool ID is ENFCT\_ENFSP\_CPID.

**Serialization:** None

**Function:** This is an SRB process area built by IEFENFNM for SRBEXIT type listen exits. This block is queued up to ENFL\_ENFSP\_First@ if the SRB routine, IEFENFSR, has been scheduled but has not yet completed processing.

## IEFENFSP mapping

Table 435. Structure ENFSP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	ENFSP	
0	(0)	CHARACTER	6	ENFSP_ID	Parameter list identifier
6	(6)	UNSIGNED	2	ENFSP_LEN	Parameter list length
8	(8)	UNSIGNED	1	ENFSP_VERS	Parameter list version number
9	(9)	CHARACTER	3	ENFSP_RSV1	Reserved
12	(C)	ADDRESS	4	ENFSP_ENFSC_ADDR	Address of the ENFSC created for this signal request
16	(10)	ADDRESS	4	ENFSP_ENFL_ADDR	Address of the listen element defining the SRB EXIT
20	(14)	CHARACTER	4	*	Reserved for alignment
24	(18)	ADDRESS	8	ENFSP_NEXT	Pointer to the next ENFSP. Set by IEFENFNM, used by IEFENFSR
32	(20)	ADDRESS	8	ENFSP_PREV	Ptr to the previous ENFSP. Set and used by IEFENFSR.

Table 436. Constants for IEFENFSP

Len	Type	Value	Name	Description
Constants				
6	CHARACTER	ENFSP	ENFSPCID	Parameter list ID
1	DECIMAL	2	ENFSPVER	Parameter list version
4	DECIMAL	241	ENFSP_SUBPOOL	Subpool 241 = common, ECSA, pageable.

Table 437. Cross Reference for IEFENFSP

Name	Offset	Hex Tag
ENFSP	0	
ENFSP_ENFL_ADDR	10	
ENFSP_ENFSC_ADDR	C	
ENFSP_ID	0	
ENFSP_LEN	6	
ENFSP_NEXT	18	
ENFSP_PREV	20	
ENFSP_RSV1	9	
ENFSP_VERS	8	

## IEFENF40 information

### IEFENF40 programming interface information

IEFENF40 is a programming interface.

### IEFENF40 heading information

<b>Common name:</b>	Mapping macro for ENF Event Code #40 Listeners
<b>Macro ID:</b>	IEFENF40
<b>DSECT name:</b>	ENF40
<b>Owning component:</b>	Subsystem Interface - SSI (SC1B6)
<b>Eye-catcher ID:</b>	'ENF40 ' Offset: 0 Length: 6
<b>Storage attributes:</b>	Subpool: Common subpool Key: 1 Residency: Any
<b>Size:</b>	36 bytes ('24'X) FREQUENCY = 1 per ENF 40 signal
<b>Created by:</b>	Job Entry Subsystem (e.g. JES2)
<b>Pointed to by:</b>	Upon entry to ENF event code 40 listen exit, register 1 points to a word that contains the address of the ENF40 parameter list.
<b>Serialization:</b>	None
<b>Function:</b>	Job Entry Subsystem (JES) initialization / ending event code 40 listen exit parameter list mapping



## IEFENF40 mapping

Table 438. Structure ENF40

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ENF40	ENF40 mapping
0	(0)	SIGNED	4	(0)	Full word alignment
0	(0)	CHARACTER	6	ENF40_ID	Id 'ENF40 '
6	(6)	BITSTRING	1	ENF40_VERSION	Version of mapping
7	(7)	BITSTRING	1		Reserved
8	(8)	SIGNED	2	ENF40_LENGTH	Length of parameter list
10	(A)	BITSTRING	2		Reserved
12	(C)	BITSTRING	4	ENF40_QUALIFIER	Qualifier code
16	(10)	CHARACTER	4	ENF40_SSNM	Actual name of subsystem
20	(14)	CHARACTER	8	ENF40_CNAM	Common name of subsystem
28	(1C)	CHARACTER	8		Reserved
28	(1C)	X'24'	0	ENF40_SIZE	"*-ENF40" Length of ENF40 parameter area
28	(1C)	X'1'	0	ENF40_CVER	"1" Current version
	....	....		ENF40_INIT	"X'80000000'" Job entry subsystem has initialized qualifier
	....	....		ENF40_TERM	"X'40000000'" Job entry subsystem is ending qualifier

Table 439. Cross Reference for IEFENF40

Name	Offset	Hex	Tag
ENF40	0		
ENF40_CNAM	14		
ENF40_CVER	1C		1
ENF40_ID	0		
ENF40_INIT	1C		0
ENF40_LENGTH	8		
ENF40_QUALIFIER	C		
ENF40_SIZE	1C		24
ENF40_SSNM	10		
ENF40_TERM	1C		0
ENF40_VERSION	6		

## IEFEVARY information

### IEFEVARY programming interface information

The following field is **NOT** programming interface information:

- EVACSCB

### IEFEVARY heading information

**Common name:** VARY PARAMETER LIST

**Macro ID:** IEFEVARY

**DSECT name:** EVARY

**Owning component:** ALLOCATION (SC1B4)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: USER'S SUBPOOL  
Key: CALLER'S KEY  
Residency: ANY

**Size:** 56 BYTES

**Created by:** ISSUERS OF VARY ENF EVENTS 1, 2, 23 AND 24

**Pointed to by:** FIRST WORD OF PARAMETER LIST POINTED TO BY R1 ON ENTRY TO ENF LISTEN EXIT

**Serialization:** NONE

**Function:** CONTAINS DEVICE INFORMATION PASSED BY THE SIGNALLERS OF THE VARY ONLINE AND VARY OFFLINE EVENTS TO THE LISTENERS.

## IEFEVARY mapping

Table 440. Structure EVARY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EVARY	VARY PARAMETER LIST
0	(0)	SIGNED	4	EVAUCBA	UCB ADDRESS FOR DEVICE
4	(4)	SIGNED	2	EVARSV4	RESERVED
6	(6)	BITSTRING	1	EVARSV5	RESERVED
7	(7)	CHARACTER	1	EVARSV1	RESERVED
8	(8)	BITSTRING	1	EVAFUNC	FUNCTION BYTE
	.... ...1			EVARSV8	"X'01'" RESERVED
	.... ..1.			EVAVARY	"X'02'" VARY REQUESTS
	.... ..11			EVARSV9	"X'03'" RESERVED
	.... ..1..			EVARSV10	"X'04'" RESERVED
9	(9)	BITSTRING	1	EVAFLGS	REQUEST TYPE FLAG
	1... ....			EVAONLI	"X'80'" ONLINE REQUEST
	.1.. ....			EVAOFLI	"X'40'" OFFLINE REQUEST
	..1. ....			EVADEVIC	"X'20'" DEVICE REQUEST
	...1 ....			EVAVALID	"X'10'" VALID FLAG
	.... 1...			EVASCHG	"X'08'" SMS VOLUME STATUS CHANGE
	.... .1..			EVAPND	"X'04'" PENDING OFFLINE REQUEST
	.... ..1.			EVAFORCE	"X'02'" OFFLINE FORCE REQUEST - VALID ONLY FOR PENDING OFFLINE ENF SIGNAL
	.... ...1			EVAFRSV3	"X'01'" RESERVED
10	(A)	SIGNED	2	EVALEN	LENGTH OF VARY PARAMETER LIST
12	(C)	ADDRESS	4	EVACSCB	POINTER TO CSCB (OPTIONAL)
16	(10)	CHARACTER	6	EVAVOLID	VOLUME SERIAL
22	(16)	CHARACTER	2	EVARSV11	RESERVED
24	(18)	CHARACTER	4	EVACONSO	CONSOLE ID, MAY BE ZERO IF NOT AVAILABLE
28	(1C)	CHARACTER	8	EVACART	CART, MAY BE ZERO IF NOT AVAILABLE

Table 440. Structure EVARY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
36	(24)	CHARACTER	1	EVARSV12	RESERVED
36	(24)	X'38'	0	EVALLEN	"*-EVARY" LENGTH OF VARY PARAMETER LIST

Table 441. Cross Reference for IEFEVARY

Name	Offset	Hex	Tag
EVACART	1C		
EVACONSO	18		
EVACSCB	C		
EVADEV	9		20
EVAFLGS	9		
EVAFORCE	9		2
EVAFRSV3	9		1
EVAFUNC	8		
EVALEN	A		
EVALLEN	24		38
EVAOFLI	9		40
EVAONLI	9		80
EVAPND	9		4
EVARSV1	7		
EVARSV10	8		4
EVARSV11	16		
EVARSV12	24		
EVARSV4	4		
EVARSV5	6		
EVARSV8	8		1
EVARSV9	8		3
EVARY	0		
EVASCHG	9		8
EVAUCBA	0		
EVAVALID	9		10
EVAVARY	8		2
EVAVOLID	10		

## IEFJFRQP information

### IEFJFRQP programming interface information

IEFJFRQP is a programming interface.

## IEFJFRQP heading information

**Common name:** IEFJFRQ Exit Routine Parameter List

**Macro ID:** IEFJFRQP

**DSECT name:** FRQP - IEFJFRQP parameter list FRQP\_PLIST\_AREA - Pointer list on entry to IEFJFRQ

**Owning component:** Subsystem Interface (SC1B6)

**Eye-catcher ID:** FRQP  
Offset: 0  
Length: 4 bytes

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 230 when IEFJFRQ is called in supervisor state,  
132 when IEFJFRQ is called in problem state  
Key: Key of the caller of the SSI, or key 1  
Data Space: No  
Residency: Below

**Size:** 40 bytes (decimal)

**Created by:** Subsystem Interface

**Pointed to by:** First word of a 2-word parameter list pointed to by register 1 on entry to an IEFJFRQ exit routine

**Serialization:** None

**Function:** Maps the parameter list passed to exit routines associated with the IEFJFRQ exit point.

## IEFJFRQP mapping

Table 442. Structure FRQP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FRQP	IEFJFRQ parameter list
0	(0)	SIGNED	4	FRQP_HEADER(0)	Parameter list header
0	(0)	CHARACTER	4	FRQPID	Control block identifier (FRQPCID)
4	(4)	SIGNED	2	FRQPVERS	Version number. Current version number is FRQPCVER.
6	(6)	SIGNED	2	FRQPLEN	Length of parameter list
8	(8)	CHARACTER	4		Reserved
12	(C)	SIGNED	4	FRQP_INPUT(0)	Input passed to exit routine
12	(C)	ADDRESS	4	FRQP_SS0B@	Address of SS0B representing the current SSI function request
16	(10)	CHARACTER	2	FRQP_INPUT_FLAGS(0)	Flags describing the current SSI request
16	(10)	CHARACTER	1	FRQP_INPUT_FLAG1	First flag byte
	1... ....			FRQP_BCST_RQST	"X'80'" On when the current function request is broadcast, off when directed
	.1.. ....			FRQP_PRE_RQST	"X'40'" On when the exit routine is being called before the function request is processed by the target subsystem, off when the request has been processed by all subsystems

Table 442. Structure FRQP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		FRQP_LOJ_SSIB	"X'20'" On when the SSI provided a copy of the life-of-job SSIB (original SSOBSSIB=0)
17	(11)	CHARACTER	1	FRQP_INPUT_FLAG2	Second flag byte
18	(12)	SIGNED	2		Reserved
20	(14)	SIGNED	4	FRQP_CURRENT_SSI_RETCODE	Current cumulative return code that would be returned to the SSI's caller if the exit does not intervene
24	(18)	CHARACTER	12	FRQP_CORRELATION_TOKEN(0)	Token identifying current function request, for use in correlating the multiple exit calls resulting from the same directed or broadcast function request
24	(18)	CHARACTER	8	FRQP_SYSTEM_TOKEN	This piece of the token is unique across an IPL on a single system
32	(20)	SIGNED	4	FRQP_SYSPLEX_ID	This piece of the token appended to FRQP_SYSTEM_TOKEN makes the correlation token unique across the sysplex
36	(24)	CHARACTER	4		Reserved
36	(24)	X'28'	0	FRQP_END	"*" End of FRQP parameter list

Table 443. Structure FRQP\_PLIST\_AREA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	FRQP_PLIST_AREA	, Parameter list pointed to by register 1 on entry to an IEFJFRQ exit routine
0	(0)	SIGNED	4	FRQP_PLIST@	Address of IEFJFRQP parameter list
4	(4)	SIGNED	4	FRQP_DYNAREA@	Address of working storage provided to exit routine
		1... ....		FRQP_DYNAREA_LAST	"X'80'" High-order bit indicates that this is the last pointer in the parameter list

## Constant values

4	(4)	X'D9D8D7'	0	FRQPCID	"C'FRQP'" Control block ID value
4	(4)	X'1'	0	FRQPVER1	"1" First version of FRQP
4	(4)	X'1'	0	FRQPCVER	"FRQPVER1" Current version of FRQP
4	(4)	X'200'	0	FRQP_DYNSIZE	"512" Size of working storage provided to exit routines
4	(4)	X'28'	0	FRQP_LEN	"FRQP_END-FRQP" Length of FRQP parameter list

Return code values set by IEFJFRQ exit routines  
The SSI checks return codes only on return from the pre-request instance of the IEFJFRQ exit. The return code is ignored on return from the post-request instance of the exit.

4	(4)	X'0'	0	FRQP_PROCEED	"0" Route the request to the target subsystem
4	(4)	X'4'	0	FRQP_SUPPRESS	"4" Do not route the request to the target subsystem
4	(4)	X'8'	0	FRQP_INTERRUPT	"8" Do not route the request to the target subsystem or to any subsystems not yet processed (broadcast requests only)
4	(4)	X'18'	0	FRQP_STOP_EXIT_ROUTINE_CALLS	

Table 443. Structure FRQP\_PLIST\_AREA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"24" Do not route the request to the target subsystem or to any subsystems not yet processed (broadcast requests only) and do not call any other exit routines associated with this exit

Table 444. Cross Reference for IEFJFRQP

Name	Offset	Hex	Tag
FRQP	0		
FRQP_BCST_RQST	10		80
FRQP_CORRELATION_TOKEN	18		
FRQP_CURRENT_SSI_RETCODE	14		
FRQP_DYNAREA_LAST	4		80
FRQP_DYNAREA@	4		
FRQP_DYNSIZE	4		200
FRQP_END	24		28
FRQP_HEADER	0		
FRQP_INPUT	C		
FRQP_INPUT_FLAGS	10		
FRQP_INPUT_FLAG1	10		
FRQP_INPUT_FLAG2	11		
FRQP_INTERRUPT	4		8
FRQP_LEN	4		28
FRQP_LOJ_SSIB	10		20
FRQP_PLIST_AREA	0		
FRQP_PLIST@	0		
FRQP_PRE_RQST	10		40
FRQP_PROCEED	4		0
FRQP_SSOB@	C		
FRQP_STOP_EXIT_ROUTINE_CALLS	4		18
FRQP_SUPPRESS	4		4
FRQP_SYSPLEX_ID	20		
FRQP_SYSTEM_TOKEN	18		
FRQPCID	4		D9D8D7
FRQPCVER	4		1
FRQPID	0		
FRQPLEN	6		
FRQPVERS	4		
FRQPVER1	4		1

## IEFJSBVT information

### IEFJSBVT heading information

<b>Common name:</b>	Function Routine Input Table Mapping
<b>Macro ID:</b>	IEFJSBVT
<b>DSECT name:</b>	JSBVT (fixed header), JSBTBL (function routine area), JSBFCODG (function code area)
<b>Owning component:</b>	Subsystem Interface (SC1B6)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: determined by caller of IEFJSVEC Key: determined by caller of IEFJSVEC Residency: Any
<b>Size:</b>	Variable (JSBVT header = 16 bytes)
<b>Created by:</b>	Caller of IEFJSVEC
<b>Pointed to by:</b>	VTSSVTD field of the VTSPL data area
<b>Serialization:</b>	None
<b>Function:</b>	Maps the function routine data used in building a subsystem vector table through IEFJSVEC. IEFJSVEC has been superseded for external use by IEFSSVT and the function of this macro is performed by IEFSSVTI.

### IEFJSBVT mapping

Table 445. Structure JSBVT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBVT	FIXED HEADER OF SSVT TABLE DATA
0	(0)	SIGNED	4	JSBHDR(0)	HEADER SECTION
0	(0)	CHARACTER	4	JSBID	IDENTIFIER 'JSBV'
4	(4)	SIGNED	2	JSBLEN	LENGTH OF HEADER SECTION
6	(6)	BITSTRING	1	JSBVERS	VERSION OF MAPPING
7	(7)	BITSTRING	1	JSBRVS2	RESERVED
8	(8)	SIGNED	2	JSBFUN	NUMBER OF FUNCTION ROUTINES SPECIFIED IN THIS TABLE OF DATA
10	(A)	BITSTRING	1	JSBSPL	SUBPOOL FOR SSVT
11	(B)	BITSTRING	1	JSBRVS1	RESERVED
12	(C)	SIGNED	2	JSBMAXFR	MAXIMUM NUMBER OF FUNCTION ROUTINE ENTRIES REQUIRED (FOR SSVT CREATE)
14	(E)	SIGNED	2	JSBRVS3	RESERVED
14	(E)	X'10'	0	JSBVTLT	"*-JSBVT" SIZE OF FIXED HEADER
16	(10)	SIGNED	4	JSBDATA(0)	FUNCTION ROUTINE DATA

Table 446. Structure JSBTBL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBTBL	ONE FOR EACH FUNCTION RTN
0	(0)	SIGNED	2	JSBLGTH	LENGTH OF THIS RTN'S DATA AREA

Table 446. Structure JSBTBL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	CHARACTER	8	JSBNME	NAME OF FUNCTION ROUTINE
10	(A)	SIGNED	2	JSBNUM	NUMBER OF FUNCTION CODES SUPPORTED
10	(A)	X 'C'	0	JSBTBLGT	"*-JSBTBL" SIZE OF FUNCTION ROUTINE DATA

Table 447. Structure JSBFCODG

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBFCODG	ONE FOR EACH FUNCTION CODE
0	(0)	SIGNED	2	JSBFCOD	THE FUNCTION CODE
0	(0)	X '2'	0	JSBCDLGT	"*-JSBFCODG" SIZE OF FUNCTION CODE
0	(0)	X '1'	0	JSBCVERS	"1" CURRENT VERSION OF MAPPING

Table 448. Cross Reference for IEFJSBVT

Name	Offset	Hex	Tag
JSBCDLGT	0		2
JSBCVERS	0		1
JSBDATA	10		
JSBFCOD	0		
JSBFCODG	0		
JSBFUN	8		
JSBHDR	0		
JSBID	0		
JSBLEN	4		
JSBLGTH	0		
JSBMAXFR	C		
JSBNME	2		
JSBNUM	A		
JSBRSV1	B		
JSBRSV2	7		
JSBRSV3	E		
JSBSPL	A		
JSBTBL	0		
JSBTBLGT	A		C
JSBVERS	6		
JSBVT	0		
JSBVTLT	E		10

## IEFJSEPL information

### IEFJSEPL programming interface information

IEFJSEPL is a programming interface.



## IEFJSEPL heading information

**Common name:** Subsystem event routine parameter list

**Macro ID:** IEFJSEPL

**DSECT name:** JSEPL

**Owning component:** Subsystem Interface (SC1B6)

**Eye-catcher ID:** JSEPL  
Offset: 0  
Length: 5

**Storage attributes:** Subpool: Caller-specified  
Key: 0

**Size:** X'20' bytes

**Created by:** IEFJPACT

**Pointed to by:** On entry to the event notification exit routine, register 1 points to the IEFJSEPL parameter list.

**Serialization:** None

**Function:** Defines the subsystem event routine parameter list, enabled using the IEFSSI REQUEST=OPTIONS,EVENTRTN= service.

## IEFJSEPL mapping

Table 449. Structure JSEPL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSEPL	Subsystem event parameter list
0	(0)	CHARACTER	5	JSEEEYC	Eyecatcher - 'JSEPL'
5	(5)	BITSTRING	1	JSEVER	Version of the parameter list
6	(6)	SIGNED	2	JSELGTH	Length of the parameter list
8	(8)	BITSTRING	1	JSEEVENT	Event type - see JSEEvent_xxx constants below
9	(9)	CHARACTER	3		Reserved for alignment
12	(C)	CHARACTER	4	JSESSNAME	Subsystem name
16	(10)	ADDRESS	4	JSESSCVT	Pointer to SSCVT
20	(14)	CHARACTER	12		Reserved for future use
20	(14)	X'1'	0	JSECV	"1" Current version number
20	(14)	X'1'	0	JSEVER1	"1" Version 1
20	(14)	X'1'	0	JSEEVENT_DELETE	"1" Delete event
20	(14)	X'20'	0	JSEPL_LEN	"*-JSEPL"

Table 450. Cross Reference for IEFJSEPL

Name	Offset	Hex Tag
JSECV	14	1
JSEEVENT	8	
JSEEVENT_DELETE	14	1

Table 450. Cross Reference for IEFJSEPL (continued)

Name	Offset	Hex Tag
JSEYEC	0	
JSELGTH	6	
JSEPL	0	
JSEPL_LEN	14	20
JSESSCVT	10	
JSESSNAME	C	
JSEVER	5	
JSEVER1	14	1

## IEFJSQRY information

### IEFJSQRY programming interface information

IEFJSQRY is a programming interface.

### IEFJSQRY heading information

<b>Common name:</b>	IEFSSI QUERY Output Mapping
<b>Macro ID:</b>	IEFJSQRY
<b>DSECT name:</b>	JQRY_HEADER - Output header data JQRY_VT_ENTRY - Data for one vector table
<b>Owning component:</b>	Subsystem Interface (SC1B6)
<b>Eye-catcher ID:</b>	JQRY Offset: 0 Length: 4 bytes
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: Determined by caller of IEFSSI REQUEST=QUERY Key: Key of IEFSSI caller (if subpool is variable key) Data Space: No Residency: ABOVE if permitted by subpool, otherwise BELOW
<b>Size:</b>	JQRY_HEADER_LEN + (number subsystems * JQRY_SUBSYS_LEN)
<b>Created by:</b>	Subsystem Interface
<b>Pointed to by:</b>	User pointer identified by the WORKAREA keyword in the IEFSSI invocation
<b>Serialization:</b>	None
<b>Function:</b>	Maps the output of an IEFSSI QUERY request

## IEFJSQRY mapping

Table 451. Structure JQRY\_HEADER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JQRY_HEADER	, IEFSSI QUERY output area
0	(0)	SIGNED	4	(0)	
0	(0)	CHARACTER	4	JQRYID	Control block identifier (JQRYCID)
4	(4)	SIGNED	2	JQRYVERS	Version number. Current version is JQRYCVER.
6	(6)	SIGNED	2		Reserved
8	(8)	SIGNED	4	JQRYLEN	Length of data returned by the QUERY request
12	(C)	SIGNED	4	JQRY_NUM_SUBSYS	Number of subsystems for which data is returned
12	(C)	X'10'	0	JQRY_SUBSYS_DATA	"*" Subsystem data

Table 452. Structure JQRY\_SUBSYS\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JQRY_SUBSYS_ENTRY	, Data for one subsystem
0	(0)	CHARACTER	4	JQRY_SUBSYS_NAME	Name of the subsystem
4	(4)	BITSTRING	1	JQRY_SSID	Subsystem ID
		.... ....		JQRY_SSID_UNKNOWN	"X'00'" SSID value when unknown
		.... ..1.		JQRY_SSID_JES2	"X'02'" SSID value when JES2
		.... ..11		JQRY_SSID_JES3	"X'03'" SSID value when JES3
5	(5)	CHARACTER	7		Reserved
Any future subsystem status flags will be defined only in the 1-byte fields JQRY_STATUS1 and JQRY_STATUS2. The existing 2-byte flag fields are left for compatibility, but new flags will be defined as 1-byte values.					
12	(C)	CHARACTER	2	JQRY_STATUS(0)	Subsystem flags
12	(C)	BITSTRING	0	JQRY_PRIMARY	"X'8000'" Subsystem is the primary subsystem
12	(C)	BITSTRING	0	JQRY_DYNAMIC	"X'4000'" Subsystem is dynamic
12	(C)	BITSTRING	0	JQRY_DYNSSI_COMMANDS	"X'2000'" Subsystem responds to the SETSSI command. Valid only if JQRY_DYNAMIC set.
12	(C)	BITSTRING	0	JQRY_ACTIVE	"X'1000'" Subsystem is active
		.... ...1		JQRY_INCOMPLETE	"X'0001'" Data for this subsystem may be incomplete
12	(C)	CHARACTER	1	JQRY_STATUS1	Subsystem flags - byte 1
		1... ....		JQRY_PRIMARY1	"X'80'" Subsystem is the primary subsystem
		.1.. ....		JQRY_DYNAMIC1	"X'40'" Subsystem is dynamic
		..1. ....		JQRY_DYNSSI_COMMANDS1	"X'20'" Subsystem responds to the SETSSI command. Valid only if JQRY_DYNAMIC1 set.
		...1 ....		JQRY_ACTIVE1	"X'10'" Subsystem is active
		.... 1...		JQRY_EVENTRTN_LOADED	"X'08'" Subsystem has a subsystem event routine loaded and available
13	(D)	CHARACTER	1	JQRY_STATUS2	Subsystem flags - byte 2
		.... ...1		JQRY_INCOMPLETE2	"X'01'" Data for this subsystem may be incomplete

Table 452. Structure JQRY\_SUBSYS\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E)	SIGNED	2	JQRY_NUM_VT	Number of vector tables associated with this subsystem
14	(E)	X'10'	0	JQRY_VT_LIST	"*" List of associated vector tables (space for description of two vector tables)

Table 453. Structure JQRY\_VT\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	JQRY_VT_ENTRY	, Data for one vector table
0	(0)	SIGNED	4	JQRY_VT_LOC	Vector table locator. This is a token if JQRY_VT_SSI_MANAGED is set, and the vector table address if the flag is not set.
4	(4)	BITSTRING	1	JQRY_VT_FLAGS	Vector table flags
		1... ....		JQRY_VT_ACTIVE	"X'80'" This vector table is being used to route function requests
		.1... ....		JQRY_VT_SSI_MANAGED	"X'40'" Vector table is SSI-managed (created via IEFSSVT)
5	(5)	CHARACTER	3		Reserved
8	(8)	CHARACTER	4		Reserved
12	(C)	BITSTRING	32	JQRY_VT_FUNC_LIST(0)	Function code list
12	(C)	BITSTRING	31	JQRY_VT_FUNC_CODES	Bit mask indicating support function codes ('1'B = supported). Valid if JQRY_VT_SSI_MANAGED or JQRY_VT_ACTIVE set.
44	(2C)	CHARACTER	8		Reserved
44	(2C)	X'34'	0	JQRY_VT_END	"*" End of vector table entry

## Constant values

44	(2C)	X'D8D9E8'	0	JQRYCID	"C'JQRY'" Control block ID value
44	(2C)	X'1'	0	JQRYVER1	"1" First version of IEFJSQRY
44	(2C)	X'1'	0	JQRYCVER	"JQRYVER1" Current version of IEFJSQRY
44	(2C)	X'34'	0	JQRY_VT_LEN	"JQRY_VT_END-JQRY_VT_ENTRY" Length of data for one vector table
44	(2C)	X'78'	0	JQRY_SUBSYS_LEN	"JQRY_VT_LIST-JQRY_SUBSYS_ENTRY+(2*JQRY_VT_LEN)" Length of data for one subsystem
44	(2C)	X'10'	0	JQRY_HEADER_LEN	"JQRY_SUBSYS_DATA-JQRY_HEADER" Length of JQRY_HEADER section

Table 454. Cross Reference for IEFJSQRY

Name	Offset	Hex Tag
JQRY_ACTIVE	C	1000
JQRY_ACTIVE1	C	10
JQRY_DYNAMIC	C	4000
JQRY_DYNAMIC1	C	40
JQRY_DYNSSI_COMMANDS	C	2000
JQRY_DYNSSI_COMMANDS1	C	20
JQRY_EVENTRTN_LOADED	C	8

Table 454. Cross Reference for IEFJSQRY (continued)

Name	Offset	Hex Tag
JQRY_HEADER	0	
JQRY_HEADER_LEN	2C	10
JQRY_INCOMPLETE	C	1
JQRY_INCOMPLETE2	D	1
JQRY_NUM_SUBSYS	C	
JQRY_NUM_VT	E	
JQRY_PRIMARY	C	8000
JQRY_PRIMARY1	C	80
JQRY_SSID	4	
JQRY_SSID_JES2	4	2
JQRY_SSID_JES3	4	3
JQRY_SSID_UNKNOWN	4	0
JQRY_STATUS	C	
JQRY_STATUS1	C	
JQRY_STATUS2	D	
JQRY_SUBSYS_DATA	C	10
JQRY_SUBSYS_ENTRY	0	
JQRY_SUBSYS_LEN	2C	78
JQRY_SUBSYS_NAME	0	
JQRY_VT_ACTIVE	4	80
JQRY_VT_END	2C	34
JQRY_VT_ENTRY	0	
JQRY_VT_FLAGS	4	
JQRY_VT_FUNC_CODES	C	
JQRY_VT_FUNC_LIST	C	
JQRY_VT_LEN	2C	34
JQRY_VT_LIST	E	10
JQRY_VT_LOC	0	
JQRY_VT_SSI_MANAGED	4	40
JQRYCID	2C	D8D9E8
JQRYCVER	2C	1
JQRYID	0	
JQRYLEN	8	
JQRYVERS	4	
JQRYVER1	2C	1

# IEFJSRC information

## IEFJSRC programming interface information

IEFJSRC is a programming interface.

## IEFJSRC heading information

<b>Common name:</b>	Dynamic SSI Return and Reason Codes
<b>Macro ID:</b>	IEFJSRC
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Initiator (SC1B6)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Main Storage: N/A Virtual Storage: N/A Auxiliary Storage: N/A Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Defines the return and reason codes used by Dynamic SSI services.

## IEFJSRC mapping

Table 455. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
A 000000-999999 D Remove support for subsystem deletion A Define IEFSSVT_INVALID_FROUTINE reason code A Define IEFSSVT_NO_FCODES reason code D Remove support for vector table usage monitoring A Add IEFSSI_WARNING and IEFSSVT_WARNING return codes A Define IEFSSVT_MAXENTRIES_TOO_BIG reason code C Change comments on IEFSSI_UNAVAILABLE and IEFSSVT_UNAVAILABLE to indicate return code may be received if service requested on a down-level system. C Add IEFSSI_EVENTRTN_NOT_FOUND reason code.					
%GOTO JSRCPLS; IEFSSI RETURN CODES (decimal)					
0	(0)	X'0'	0	IEFSSI_SUCCESS	"0" X'000' Processing successful
0	(0)	X'4'	0	IEFSSI_WARNING	"4" X'004' Processing partially successful
0	(0)	X'8'	0	IEFSSI_INVALID_PARAMETERS	"8" X'008' Invalid parameters

Table 455. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'C'	0	IEFSSI_REQUEST_FAIL	"12" X'00C' Request failed
0	(0)	X'14'	0	IEFSSI_SYSTEM_ERROR	"20" X'014' System error
0	(0)	X'18'	0	IEFSSI_UNAVAILABLE	"24" X'018' SSI service routines not available (too early or down-level system)
IEFSSI REASON CODES (decimal) RETURN CODE IEFSSI_SUCCESS					
0	(0)	X'0'	0	IEFSSI_FUNCTIONS_COMPLETE	"0" X'000' Subsystem service request complete
RETURN CODE IEFSSI_WARNING ADD REQUEST WARNINGS (100 - 199) ACTIVATE REQUEST WARNINGS (200 - 299) DEACTIVATE REQUEST WARNINGS (300 - 399)					
0	(0)	X'12C'	0	IEFSSI_DEACT_INACTIVE	"300" X'12C' Subsystem already inactive
0	(0)	X'12D'	0	IEFSSI_DEACT_OUT_VT_NOT_SSI	"301" X'12D' Subsystem deactivated but previously-active vector table not SSI-managed. OUTTOKEN value is 0.
SWAP REQUEST WARNINGS (500 - 599)					
0	(0)	X'1F4'	0	IEFSSI_SWAP_INACTIVE	"500" X'1F4' Subsystem was initially inactive. OUTTOKEN value is 0.
0	(0)	X'1F5'	0	IEFSSI_SWAP_OUT_VT_NOT_SSI	"501" X'1F5' Swap complete but previously-active vector table not SSI-managed. OUTTOKEN value is 0.
OPTIONS REQUEST WARNINGS (600 - 699) PUT REQUEST WARNINGS (700 - 799) GET REQUEST WARNINGS (800 - 899) QUERY REQUEST WARNINGS (900 - 999)					
0	(0)	X'384'	0	IEFSSI_QUERY_INCOMPLETE	"900" X'384' Data returned by query may be incomplete. Check the JQRY_INCOMPLETE flag for each subsystem queried.
RETURN CODE IEFSSI_INVALID_PARAMETERS					
0	(0)	X'0'	0	IEFSSI_SUBSYSTEM_UNKNOWN	"0" X'000' Subsystem not defined to SSI
0	(0)	X'4'	0	IEFSSI_NON_DYNAMIC	"4" X'004' Subsystem not dynamic
0	(0)	X'8'	0	IEFSSI_BAD_VT_TOKEN	"8" X'008' Vector table token does not correspond to a valid vector table
0	(0)	X'C'	0	IEFSSI_INVALID_NAME	"12" X'00C' Subsystem or routine name contains invalid characters
0	(0)	X'10'	0	IEFSSI_INIT_PARMS	"16" X'010' Initialization routine parameter string too long
RETURN CODE IEFSSI_REQUEST_FAIL ADD REQUEST ERRORS (100 - 199)					
0	(0)	X'64'	0	IEFSSI_DUPLICATE_SUBSYSTEM	"100" X'064' Subsystem already exists
0	(0)	X'65'	0	IEFSSI_INITRTN_NOT_FOUND	"101" X'065' Initialization routine could not be found
0	(0)	X'66'	0	IEFSSI_INITRTN_ABEND	"102" X'066' Initialization routine ABENDED

Table 455. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'67'	0	IEFSSI_ADD_STORAGE	"103" X'067' Unable to obtain storage for subsystem definition
ACTIVATE REQUEST ERRORS (200 - 299)					
0	(0)	X'C8'	0	IEFSSI_SUBSYSTEM_ACTIVE	"200" X'0C8' Subsystem already active
0	(0)	X'C9'	0	IEFSSI_ACT_NO_ELIGIBLE_VT	"201" X'0C9' Subsystem vector table not specified and no valid defaults available
DEACTIVATE REQUEST ERRORS (300 - 399) SWAP REQUEST ERRORS (500 - 599)					
0	(0)	X'1F4'	0	IEFSSI_SWAP_NO_ELIGIBLE_VT	"500" X'1F4' Subsystem vector table not specified and no valid defaults available
0	(0)	X'1F6'	0	IEFSSI_SWAP_ALREADY_ACTIVE	"502" X'1F6' Vector table to be made active (specified by INTOKEN) is already active
OPTIONS REQUEST ERRORS (600 - 699)					
0	(0)	X'258'	0	IEFSSI_EVENTRTN_NOT_FOUND	"600" X'258' EVENTRTN routine could not be found
PUT REQUEST ERRORS (700 - 799) GET REQUEST ERRORS (800 - 899) QUERY REQUEST ERRORS (900 - 999)					
0	(0)	X'384'	0	IEFSSI_QUERY_STORAGE	"900" X'384' Unable to obtain storage for output of query request
IEFSSVT RETURN CODES (decimal)					
0	(0)	X'0'	0	IEFSSVT_SUCCESS	"0" X'000' Processing successful
0	(0)	X'4'	0	IEFSSVT_WARNING	"4" X'004' Processing partially successful
0	(0)	X'8'	0	IEFSSVT_INVALID_PARAMETERS	"8" X'008' Invalid parameters
0	(0)	X'C'	0	IEFSSVT_REQUEST_FAIL	"12" X'00C' Request failed
0	(0)	X'10'	0	IEFSSVT_LOAD_ERROR	"16" X'010' Error LOADING subsystem function routine
0	(0)	X'14'	0	IEFSSVT_SYSTEM_ERROR	"20" X'014' System error
0	(0)	X'18'	0	IEFSSVT_UNAVAILABLE	"24" X'018' SSI service routines not available (too early or down-level system)
IEFSSVT REASON CODES (decimal) RETURN CODE IEFSSVT_SUCCESS					
0	(0)	X'0'	0	IEFSSVT_FUNCTIONS_COMPLETE	"0" X'000' Vector table service request complete
RETURN CODE IEFSSVT_WARNING RETURN CODE IEFSSVT_INVALID_PARAMETERS					
0	(0)	X'0'	0	IEFSSVT_SUBSYSTEM_UNKNOWN	"0" X'000' Subsystem not defined to SSI
0	(0)	X'4'	0	IEFSSVT_NON_DYNAMIC	"4" X'004' Subsystem not dynamic
0	(0)	X'8'	0	IEFSSVT_BAD_VT_TOKEN	"8" X'008' Vector table token does not correspond to a valid vector table



Table 455. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'C'	0	IEFSSVT_INVALID_NAME	"12" X'00C' Subsystem or routine name contains invalid characters
0	(0)	X'10'	0	IEFSSVT_INVALID_FUNCTION_CODE	"16" X'010' Function code outside valid range
0	(0)	X'14'	0	IEFSSVT_DUPLICATE_FUNCTION_CODE	"20" X'014' Function code appears more than once in input table
0	(0)	X'18'	0	IEFSSVT_INVALID_FROUTINE	"24" X'018' Function routine name / address is null
0	(0)	X'1C'	0	IEFSSVT_NO_FCODES	"28" X'01C' Function routine entry in input table specifies no function codes
RETURN CODE IEFSSVT_REQUEST_FAIL CREATE REQUEST ERRORS (100 - 199)					
0	(0)	X'64'	0	IEFSSVT_MAX_VECTOR_TABLES	"100" X'064' Maximum number of vector already exists for subsystem
0	(0)	X'65'	0	IEFSSVT_STORAGE	"101" X'065' Unable to obtain storage for vector table
0	(0)	X'66'	0	IEFSSVT_MAXENTRIES_TOO_SMALL	"102" X'066' MAXENTRIES value less than number of function routines in input table
0	(0)	X'67'	0	IEFSSVT_MAXENTRIES_TOO_BIG	"103" X'067' MAXENTRIES greater than maximum (255)
ENABLE REQUEST ERRORS (200 - 299)					
0	(0)	X'C8'	0	IEFSSVT_ENABLE_NO_ELIGIBLE_VT	"200" X'0C8' Subsystem vector table not specified and no valid defaults available
0	(0)	X'C9'	0	IEFSSVT_ENABLE_MAX_ROUTINES	"201" X'0C9' No room for new function routines in vector table
0	(0)	X'CA'	0	IEFSSVT_FUNCTION_ALREADY_ENABLED	"202" X'0CA' The subsystem already responds to one of the codes for which the enable request was submitted
DISABLE REQUEST ERRORS (300 - 399)					
0	(0)	X'12C'	0	IEFSSVT_DISABLE_NO_ELIGIBLE_VT	"300" X'12C' Subsystem vector table not specified and no valid defaults available
EXCHANGE REQUEST ERRORS (500 - 599)					
0	(0)	X'1F4'	0	IEFSSVT_EXCHANGE_NO_ELIGIBLE_VT	"500" X'1F4' Subsystem vector table not specified and no valid defaults available
0	(0)	X'1F5'	0	IEFSSVT_EXCHANGE_MAX_ROUTINES	"501" X'1F5' No room for new function routines in vector table

Table 456. Cross Reference for IEFJSRC

Name	Offset	Hex Tag
IEFSSI_ACT_NO_ELIGIBLE_VT	0	C9
IEFSSI_ADD_STORAGE	0	67
IEFSSI_BAD_VT_TOKEN	0	8
IEFSSI_DEACT_INACTIVE	0	12C
IEFSSI_DEACT_OUT_VT_NOT_SSI	0	12D
IEFSSI_DUPLICATE_SUBSYSTEM	0	64
IEFSSI_EVENTRTN_NOT_FOUND	0	258
IEFSSI_FUNCTIONS_COMPLETE	0	0
IEFSSI_INIT_PARMS	0	10
IEFSSI_INITRTN_ABEND	0	66
IEFSSI_INITRTN_NOT_FOUND	0	65
IEFSSI_INVALID_NAME	0	C
IEFSSI_INVALID_PARAMETERS	0	8
IEFSSI_NON_DYNAMIC	0	4
IEFSSI_QUERY_INCOMPLETE	0	384
IEFSSI_QUERY_STORAGE	0	384
IEFSSI_REQUEST_FAIL	0	C
IEFSSI_SUBSYSTEM_ACTIVE	0	C8
IEFSSI_SUBSYSTEM_UNKNOWN	0	0
IEFSSI_SUCCESS	0	0
IEFSSI_SWAP_ALREADY_ACTIVE	0	1F6
IEFSSI_SWAP_INACTIVE	0	1F4
IEFSSI_SWAP_NO_ELIGIBLE_VT	0	1F4
IEFSSI_SWAP_OUT_VT_NOT_SSI	0	1F5
IEFSSI_SYSTEM_ERROR	0	14
IEFSSI_UNAVAILABLE	0	18
IEFSSI_WARNING	0	4
IEFSSVT_BAD_VT_TOKEN	0	8
IEFSSVT_DISABLE_NO_ELIGIBLE_VT	0	12C
IEFSSVT_DUPLICATE_FUNCTION_CODE	0	14
IEFSSVT_ENABLE_MAX_ROUTINES	0	C9
IEFSSVT_ENABLE_NO_ELIGIBLE_VT	0	C8
IEFSSVT_EXCHANGE_MAX_ROUTINES	0	1F5
IEFSSVT_EXCHANGE_NO_ELIGIBLE_VT	0	1F4
IEFSSVT_FUNCTION_ALREADY_ENABLED	0	CA
IEFSSVT_FUNCTIONS_COMPLETE	0	0
IEFSSVT_INVALID_FROUTINE	0	18
IEFSSVT_INVALID_FUNCTION_CODE	0	10
IEFSSVT_INVALID_NAME	0	C

Table 456. Cross Reference for IEFJSRC (continued)

Name	Offset	Hex Tag
IEFSSVT_INVALID_PARAMETERS	0	8
IEFSSVT_LOAD_ERROR	0	10
IEFSSVT_MAX_VECTOR_TABLES	0	64
IEFSSVT_MAXENTRIES_TOO_BIG	0	67
IEFSSVT_MAXENTRIES_TOO_SMALL	0	66
IEFSSVT_NO_FCODES	0	1C
IEFSSVT_NON_DYNAMIC	0	4
IEFSSVT_REQUEST_FAIL	0	C
IEFSSVT_STORAGE	0	65
IEFSSVT_SUBSYSTEM_UNKNOWN	0	0
IEFSSVT_SUCCESS	0	0
IEFSSVT_SYSTEM_ERROR	0	14
IEFSSVT_UNAVAILABLE	0	18
IEFSSVT_WARNING	0	4

## IEFJSSCX information

### IEFJSSCX heading information

<b>Common name:</b>	Subsystem Communications Vector Table Extension
<b>Macro ID:</b>	IEFJSSCX
<b>DSECT name:</b>	SSCX
<b>Owning component:</b>	Subsystem Interface (SC1B6)
<b>Eye-catcher ID:</b>	SSCX Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: Caller-specified Key: 0
<b>Size:</b>	X'3C' bytes
<b>Created by:</b>	Subsystem Interface
<b>Pointed to by:</b>	SSCTSCTX field of the SSCVT data area
<b>Serialization:</b>	None
<b>Function:</b>	Maps information defining a subsystem

### IEFJSSCX mapping

Table 457. Structure SSCX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SSCX	SSCVT extension
0	(0)	CHARACTER	4	SSCXEYEC	Eyecatcher - 'SSCX'

Table 457. Structure SSCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	BITSTRING	1	SSCXVER	Version of the SSCX
5	(5)	CHARACTER	1		Reserved for alignment
6	(6)	SIGNED	2	SSCXLGTH	Length of the SSCX
8	(8)	ADDRESS	4	SSCX_EVENTRTN_ADDR	Address of event routine
12	(C)	CHARACTER	20	SSCX_DELETED_DIAGAREA	Deleted subsystem information for diagnostic purposes only. Only used when subsystem name in SSCVT is !DEL.
12	(C)	CHARACTER	4	SSCX_DELETED_SSNAME	Original name of deleted subsystem
16	(10)	CHARACTER	8	SSCX_DELETED_TOD	Time of deletion
24	(18)	ADDRESS	4	SSCX_DELETED_DIAG1	Diagnostic info
28	(1C)	ADDRESS	4	SSCX_DELETED_DIAG2	Diagnostic info
32	(20)	CHARACTER	28		Reserved and available
32	(20)	X'1'	0	SSCXCVER	"1" Current version number
32	(20)	X'1'	0	SSCXVER1	"1" Version 1
32	(20)	X'3C'	0	SSCX_LEN	"*-SSCX"

Table 458. Cross Reference for IEFJSSCX

Name	Offset	Hex	Tag
SSCX	0		
SSCX_DELETED_DIAGAREA	C		
SSCX_DELETED_DIAG1	18		
SSCX_DELETED_DIAG2	1C		
SSCX_DELETED_SSNAME	C		
SSCX_DELETED_TOD	10		
SSCX_EVENTRTN_ADDR	8		
SSCX_LEN	20		3C
SSCXCVER	20		1
SSCXEYEC	0		
SSCXLGTH	6		
SSCXVER	4		
SSCXVER1	20		1

## IEFQMAT information

### IEFQMAT heading information

<b>Common name:</b>	SWA MANAGER ADDRESS TABLE AND EXTENSIONS
<b>Macro ID:</b>	IEFQMAT
<b>DSECT name:</b>	QMAT
<b>Owning component:</b>	SWA manager (SC1B5)

**Eye-catcher ID:** QMAT  
Offset: 0  
Length: 4

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: N/A  
Key: 1  
Data Space: No  
Residency: Above the 2Gb bar

**Size:** Complete table - 1Mb

**Created by:** IEFQB551/IEFQB556

**Pointed to by:**  
- Pointer formed from fields QMADD01||QMADD23||QMADD in QMPA  
- QMATBW64  
- QMATFW64

**Serialization:** PLO CSDS to create first QMAT  
CSG to add to QMAT chain

**Function:** PROVIDES MAPPING FOR SWA MANAGER ADDRESS TABLE AND ANY EXTENSIONS

## IEFQMAT mapping

Table 459. Structure QMATHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QMATHDR	SWA MANAGER ADDRESS TABLE/ EXTENSION HEADER
0	(0)	CHARACTER	4	QMATNAME	ACRONYM 'QMAT'
4	(4)	CHARACTER	1	QMATVERS	VERSION NUMBER
5	(5)	SIGNED	3	QMATLNTH	LENGTH OF ADDRESS TABLE EXTENT
8	(8)	ADDRESS	8	QMATBW64	Pointer to previous extent
16	(10)	ADDRESS	8	QMATFW64	Pointer to next extent
24	(18)	ADDRESS	8	QMATXTVT	Pointer to extent vector table. Only present in 1st header
32	(20)	SIGNED	4	QMATSLOT	Slot number of next slot available. This slot number is only maintained in the first QMAT header.
36	(24)	SIGNED	4	QMATEXT#	CURRENT EXTENT NUMBER. THIS EXTENT NUMBER IS ONLY MAINTAINED IN THE FIRST QMAT HEADER.
40	(28)	ADDRESS	8	QMATFS64	Pointer to first entry on the chain of reuseable SVA entries
48	(30)	SIGNED	4	QMATCID1	CELL POOL ID FOR FIRST SWA CELL POOL (FOR SWA BLOCKS)
52	(34)	SIGNED	4	QMATCID2	CELL POOL ID FOR SECOND SWA CELL POOL (FOR SWB BLOCKS)
56	(38)	SIGNED	4	QMATCID3	CELL POOL ID FOR THIRD SWA CELL POOL (BELOW 16MB)
60	(3C)	SIGNED	4	QMATCID4	Cell pool ID for fourth SWA Cell pool (for swa blocks)
64	(40)	SIGNED	8	QMATCID6	Cell pool ID for sixth SWA cell pool (for SWB blocks above-the-BAR)

Table 459. Structure QMATHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
64	(40)	X'48'	0	QMATHDR_LEN	"*-QMATHDR"

Table 460. Structure QMATENTR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QMATENTR	SWA MANAGER ADDRESS TABLE ENTRIES
0	(0)	ADDRESS	8	QMATAD64	ADDRESS OF SWA BLOCK
0	(0)	ADDRESS	4		
4	(4)	ADDRESS	4	QMATADDR	VIRTUAL ADDRESS OF SWA BLOCK
8	(8)	SIGNED	4	QMATBKLN	LENGTH OF SWA BLOCK
12	(C)	BITSTRING	1	QMATBKID	BLOCK ID OF SWA BLOCK
13	(D)	SIGNED	3	QMATSV4	SV4 OF SWA BLOCK
16	(10)	ADDRESS	8	QMATNS64	Pointer to the next entry on the chain of reuseable SV4 entries

## CONSTANTS RELATED TO THE SWA MANAGER ADDRESS TABLE (QMAT).

16	(10)	X'D4C1E3'	0	QMATACRO	"C'QMAT'" ACRONYM QMAT
		.... ..11		QMATVRSN	"X'03'" Version number
16	(10)	X'7FFD'	0	QMAT#ENT	"32765" NUMBER OF ENTRIES IN AN ADDRESS TABLE EXTENT
16	(10)	X'C0'	0	QMATCP1L	"192" CELL SIZE FOR POOL 1 SET TO NORMAL SWA SIZE
16	(10)	X'D0'	0	QMATCP2L	"208" CELL SIZE FOR POOL 2 SET TO NORMAL SWB SIZE
16	(10)	X'C0'	0	QMATCP3L	"192" CELL SIZE FOR POOL 3 SET TO NORMAL SWA SIZE
16	(10)	X'170'	0	QMATCP4L	"368" CELL SIZE FOR POOL 4 SET TO NORMAL SWA SIZE
16	(10)	X'C0'	0	QMATCP5L	"192" Cell size for pool 5 set to normal SWA size. Not in use at this time.
16	(10)	X'D0'	0	QMATCP6L	"208" Cell size for pool 6 set to normal SWB size
16	(10)	X'170'	0	QMATCP7L	"368" Cell size for pool 7 set to double SWA size. Not in use at this time.
16	(10)	X'2F'	0	QMATOFF	"47" FACTOR USED IN SV4 OFFSET CALCULATION - THIS MUST BE THE SAME AS THE SP220 QMAT HDR LENGTH TO ENSURE COMPATIBLE SV4 CALCULATIONS
16	(10)	X'18'	0	QMATENTR_LEN	"*-QMATENTR"

Table 461. Cross Reference for IEFQMAT

Name	Offset	Hex Tag
QMAT#ENT	10	7FFD
QMATACRO	10	D4C1E3
QMATADDR	4	
QMATAD64	0	
QMATBKID	C	
QMATBKLN	8	

Table 461. Cross Reference for IEFQMAT (continued)

Name	Offset	Hex Tag
QMATBW64	8	
QMATCID1	30	
QMATCID2	34	
QMATCID3	38	
QMATCID4	3C	
QMATCID6	40	
QMATCP1L	10	C0
QMATCP2L	10	D0
QMATCP3L	10	C0
QMATCP4L	10	170
QMATCP5L	10	C0
QMATCP6L	10	D0
QMATCP7L	10	170
QMATENTR	0	
QMATENTR_LEN	10	18
QMATEXT#	24	
QMATFS64	28	
QMATFW64	10	
QMATHDR	0	
QMATHDR_LEN	40	48
QMATLNTH	5	
QMATNAME	0	
QMATNS64	10	
QMATOFF	10	2F
QMATSL0T	20	
QMATSV A	D	
QMATVERS	4	
QMATVRSN	10	3
QMATXTVT	18	

## IEFSIOTX information

### IEFSIOTX heading information

<b>Common name:</b>	STEP INPUT/OUTPUT TABLE EXTENSION
<b>Macro ID:</b>	IEFSIOTX
<b>DSECT name:</b>	NONE
<b>Owning component:</b>	Interpreter (SC1B9)

**Eye-catcher ID:** 'SIOX'  
Offset: -4 (SWA prefix)  
Length: 4 bytes

**Storage attributes:** Subpool: 236 OR 237 (SWA), 241 for masters address space  
Key: 1  
Residency: Any

**Size:** 352 BYTES  
SIOTX -- X'0160' bytes  
FREQUENCY = One per DD statement

**Created by:** Interpreter and Dynamic Allocation

**Pointed to by:** - DSABXVA field (SVA token) of the DSAB data area  
- SIOTXSVA field of the SIOT data area

**Serialization:** None

**Function:** Contains information concerning a data definition (DD)  
JCL statement and its related data set.

## IEFSIOTX mapping

Table 462. Structure SIOTX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	352	SIOTX	
0	(0)	CHARACTER	352	INXMSIOX	Beginning indicator
0	(0)	CHARACTER	176	SIOTX_SIoT	SIOT related information
0	(0)	ADDRESS	4	*	Reserved for pointer to a new Extension (if ever needed)
4	(4)	ADDRESS	4	*	Reserved for SVA of a new Extension (if ever needed)
<p>Note that an SVA has an attribute of PTR(24). The first word in a DD token must be declared as PTR(31) so that the high order byte will be padded with zeros when saving the SVA in the first word. The second word of the DD Token is always zero.</p>					
8	(8)	CHARACTER	8	SIOTX_UNAFF_TOKEN	DD Token for affed-to DD (UNIT=AFF=DDx) Used by: IEFAB457, IEFSJACC
8	(8)	ADDRESS	4	SIOTX_UNAFF_SVA_WORD	SVA plus the slack byte used for alignment
8	(8)	ADDRESS	1	*	
9	(9)	ADDRESS	3	SIOTX_UNAFF_SVA	SVA of affed-to DD Set by: IEFVDA
12	(C)	ADDRESS	4	*	Always zero
16	(10)	ADDRESS	4	SIOTX_UNAFF_PTR	Address of affed-to DD Used by: IEFAB457
20	(14)	UNSIGNED	2	SIOTX_DEVN	Device name as a binary number
22	(16)	CHARACTER	2	*	Reserved so the JFCB portion can be properly aligned on a fullword boundary without causing any bytes in the SIOTX to be skipped
24	(18)	ADDRESS	4	SIOTX_VOLSINCON_PTR	Pointer to the volumes in conflict table for this step. If a conflict exists, all SIOTX entries will contain this information regardless of whether or not it is part of the conflict



Table 462. Structure SIOTX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	SIGNED	4	SIOTX_#VOLSINCON	Number of volumes in conflict for this step. If a conflict exists, all SIOTX entries will contain this information regardless of whether or not it is part of the conflict
<p>The following "Diagnostics" structure contains pieces of information gathered during Allocation for use in diagnosing errors such as IEF702I - Unable to Allocate, aka error code RCUNITNA (0214x) from Dynamic Allocation, IKJ56241I - No Unit Available and Siot Rsnocode SIRSC006. NOTE If space in the SIOTX should get tight, this structure could be moved to the DDWA. The size of that area is more dynamic, but it does not persist after the return to the Allocation caller, as the SIOTX does.</p>					
32	(20)	CHARACTER	40	SIOTX_DIAGNOSTICS	Unit name for this DD, saved during the Allocation process
32	(20)	CHARACTER	8	SIOTX_UNITNAMEONINPUT	EBCDIC unit name on input to Batch or DynAlloc. Set by IEFBB401, IEFDB414 Used by IEFAB4DG
40	(28)	CHARACTER	8	SIOTX_UNITNAMEAFTERDB401	EBCDIC unit name for Dynamic Allocation after installation exit IEFDB401 has had the opportunity to add, alter or delete it. Will be zero for batch allocations. See SCTUTYPE in IEFASIOT for submapping. Set by IEFDB414 Used by IEFAB4DG
48	(30)	CHARACTER	8	SIOTX_UNITNAMEAFTERLOCATE	Unit name after a locate or SMS call has been done. Can be zero if no locate or SMS call done. See SCTUTYPE in IEFASIOT for submapping. Set by IEFAB464, Used by IEFAB4DG
48	(30)	CHARACTER	4	SIOTX_DEVTYPEAFTERLOCATE	Device type portion of data returned by locate. Can be zero if no locate or SMS call done. Set by IEFAB464, Used by IEFAB4DG
52	(34)	CHARACTER	4	*	Reserved. Do not use.
56	(38)	CHARACTER	8	SIOTX_UNITNAMEAFTERCONV	Unit Name after conversion. See SCTUTYPE in IEFASIOT for submapping. Set by IEFDB414,IEFAB464 Used by IEFAB4DG
56	(38)	CHARACTER	4	SIOTX_DEVTYPEAFTERCONV	Device type portion of unitname after conversion.
60	(3C)	CHARACTER	4	*	Reserved. Do not use.
64	(40)	CHARACTER	1	SIOTX_DIAGNOSTICFLAGS	Flags for diagnostic info
	1... ....			SIOTX_SIOTCVTDATERCONV	Records value of SIOUCVTD after conversion when conversion may or may not have been done.
	.1.. ....			SIOTX_INPUTSWCOPIED	When 1, indicates that this allocation came from SVC99 and that the S99FLAG1 and S99FLAG2 have been copied here for display in IEF705I
	..11 1111			*	reserved for future use
65	(41)	CHARACTER	1	*	Reserved for future use
66	(42)	CHARACTER	6	SIOTX_COPY_INPUTSW	Copy of InputSW from DynAlloc caller. This is the S99FLAG1 and S99FLAG2. Set by IEFDB413, Used by IEFAB4DG

Table 462. Structure SIOTX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
66	(42)	CHARACTER	2	SIOTX_COPY_S99FLAG1	Copy of S99FLAG1 from DynAlloc request
68	(44)	CHARACTER	4	SIOTX_COPY_S99FLAG2	Copy of S99FLAG2 from DynAlloc request
72	(48)	CHARACTER	8	SIOTX_ALLOCATIONTIME	Timestamp when siotalcd was set
80	(50)	SIGNED	4	SIOTX_EAVEXCLUDECOUNT	Count of Extended Address Volume devices which were excluded from consideration during Allocation due to SMS parmlib USEEAV(NO) specification.
84	(54)	BITSTRING	4	SIOTX_SIOT_FLAGS	SIOT-related flags
	1... ....			SIOTX_DASD_MIGRATED_TO_TAPE	Data set was migrated to tape and not recalled because it was going to be deleted anyway. Set by IEFAB469, used by IEFBB414 and IEFAB4A2
	.1... ....			SIOTX_EDL_FOR_DASD_CATLGD_DS	Dataset is catalog'd on DASD volumes, lookup devices for those volumes and build a small & efficient EDL with only these devices instead of the generic. Set by IEFAB424.
	..1. ....			SIOTX_TMPDSN_JFCBDSN_UPDATED	The JFCBDSNM of this temporary dataset name is updated to match that of the first such dd in the job, so that all temp data sets with the same input dsn will have the same JFCBDSNM. Bit is set and used by IEFIB600.
	...1 ....			SIOTX_DEVTYPE_SET	Indicates that we have set the SIOTX_DevType field
	.... 1...			SIOTX_NO_DSTAB	Skip DSTAB processing
	.... .1..			SIOTX_IEFOPZOLD	Indicates an IEFOPZ-old allocation set by IEFAB466 when creating SIOTs/JFCBs for IEFOPZ-old
	.... ..1.			SIOTX_IEFOPZNEW	Indicates an IEFOPZ-new allocation set by IEFAB466 when creating SIOTs/JFCBs for IEFOPZ-new
84	(54)	BITSTRING	3	*	available for future use
88	(58)	ADDRESS	4	SIOTX_IEFTAPE_PTR	IEFTAPE pointer
92	(5C)	CHARACTER	1	*	Reserved for alignment
93	(5D)	ADDRESS	3	SIOTX_IEFTAPE_SVA	IEFTAPE SVA
96	(60)	CHARACTER	80	*	Reserved for future use
176	(B0)	CHARACTER	176	SIOTX_JFCB	JFCB related information
176	(B0)	CHARACTER	8	SIOTX_BLOCKSIZE	Blocksize
184	(B8)	CHARACTER	8	SIOTX_BLKSZLIM	Blocksize Limit
192	(C0)	CHARACTER	4	SIOTX_MASK_WORD1	Mask Word #1
192	(C0)	BITSTRING	1	SIOTX_MASK_BYTE1	Mask Byte #1
	1... ....			SIOTX_MSKBSLM	Mask bit for BLKSZLIM
	.111 1111			*	Reserved
193	(C1)	BITSTRING	1	SIOTX_MASK_BYTE2	Mask Byte #2
194	(C2)	BITSTRING	1	SIOTX_MASK_BYTE3	Mask Byte #3
195	(C3)	BITSTRING	1	SIOTX_MASK_BYTE4	Mask Byte #4
196	(C4)	UNSIGNED	4	SIOTX_TDSI	DEVICE TYPE

Table 462. Structure SIOTX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
196	(C4)	UNSIGNED	1	SIOTX_TDSREC	Recording Technology
197	(C5)	UNSIGNED	1	SIOTX_TDSMEDIA	Media Type
198	(C6)	UNSIGNED	1	SIOTX_TDSCOMP	Compaction
199	(C7)	UNSIGNED	1	SIOTX_TDSSPEC	Special Attribute
200	(C8)	CHARACTER	4	SIOTX_DEVTYPE	Device type from Catalog. Only valid when SIOTX_DevType_Set is also on.
204	(CC)	CHARACTER	148	*	Reserved for future use

Table 463. Constants for IEFSIOTX

Len	Type	Value	Name	Description
CONSTANTS TO DEFINE RECORDING TECHNOLOGY (SIOTX_TDSREC)				
1	DECIMAL	0	SIOTX_TDSNOREC	Recording Technology unknown or unspecified
1	DECIMAL	1	SIOTX_TDS18TRK	Read/Write on 18-track device
1	DECIMAL	2	SIOTX_TDS36TRK	Read/Write on 36-track device
1	DECIMAL	3	SIOTX_TDS128TRK	Read/Write on 128-track device
1	DECIMAL	4	SIOTX_TDS256TRK	Read/Write on 256-track device
1	DECIMAL	5	SIOTX_TDS384TRK	Read/Write on 384-track device
1	DECIMAL	6	SIOTX_TDSEFMT1	Read/Write on Enterprise Format 1 device
1	DECIMAL	7	SIOTX_TDSEFMT2	Read/Write on Enterprise Format 2 device
1	DECIMAL	8	SIOTX_TDSEEFMT2	Read/Write on Enterprise Encryption Format 2 device
1	DECIMAL	9	SIOTX_TDSEFMT3	Read/Write on Enterprise Format 3 device
1	DECIMAL	10	SIOTX_TDSEEFMT3	Read/Write on Enterprise Encryption Format 3 device
1	DECIMAL	11	SIOTX_TDSEFMT4	Read/Write on Enterprise Format 4 device
1	DECIMAL	12	SIOTX_TDSEEFMT4	Read/Write on Enterprise Encryption Format 4 device
CONSTANTS TO DEFINE MEDIA TYPE (SIOTX_TDSMEDIA)				
1	DECIMAL	0	SIOTX_TDSNOMED	Media Type unknown or unspecified
1	DECIMAL	1	SIOTX_TDSMED1	Media1 - Cartridge System Tape
1	DECIMAL	2	SIOTX_TDSMED2	Media2 - Enhanced Capacity Cartridge System Tape
1	DECIMAL	3	SIOTX_TDSMED3	Media3 - High Performance Cartridge Tape
1	DECIMAL	4	SIOTX_TDSMED4	Media4 - Extended High Performance Cartridge Tape
1	DECIMAL	5	SIOTX_TDSMED5	Media5 - Enterprise Cartridge Tape
1	DECIMAL	6	SIOTX_TDSMED6	Media6 - Enterprise WORM Cartridge Tape
1	DECIMAL	7	SIOTX_TDSMED7	Media7 - Enterprise Economy Cartridge Tape
1	DECIMAL	8	SIOTX_TDSMED8	Media8 - Enterprise Economy WORM Cartridge Tape
1	DECIMAL	9	SIOTX_TDSMED9	Media9 - Enterprise Extended Cartridge Tape

Table 463. Constants for IEFSIOTX (continued)

Len	Type	Value	Name	Description
1	DECIMAL	10	SIOTX_TDSMED10	Media10 - Enterprise Extended WORM Cartridge Tape
1	DECIMAL	11	SIOTX_TDSMED11	Media11- Enterprise Advanced Cartridge Tape
1	DECIMAL	12	SIOTX_TDSMED12	Media12- Enterprise Advanced WORM Cartridge Tape
1	DECIMAL	13	SIOTX_TDSMED13	Media13- Enterprise Advanced Economy Cartridge Tape
CONSTANTS TO DEFINE COMPACTION (SIOTX_TDSCOMP) (The meaning of the compaction field has changed from type of compaction to compaction yes/no. TDSIDRC and TDSCOMPT can be used interchangeably.)				
1	DECIMAL	0	SIOTX_TDSCMPNS	Compaction unknown or not set
1	DECIMAL	1	SIOTX_TDSNOCMP	No Compaction
1	DECIMAL	2	SIOTX_TDSCOMPT	Compaction
CONSTANTS TO DEFINE SPECIAL ATTRIBUTE (SIOTX_TDSSPEC)				
1	DECIMAL	0	SIOTX_TDSNOSPC	Volume has no special attributes
1	DECIMAL	1	SIOTX_TDSRDCOM	Volume will be mounted for read only - All read-compatible devices may be selected

Table 464. Cross Reference for IEFSIOTX

Name	Offset	Hex Tag
INXMSIOX	0	
SIOTX	0	
SIOTX_#VOLSINCON	1C	
SIOTX_ALLOCATIONTIME	48	
SIOTX_BLKSZLIM	B8	
SIOTX_BLOCKSIZE	B0	
SIOTX_COPY_INPUTSW	42	
SIOTX_COPY_S99FLAG1	42	
SIOTX_COPY_S99FLAG2	44	
SIOTX_DASD_MIGRATED_TO_TAPE	54	80
SIOTX_DEVN	14	
SIOTX_DEVTYPE	C8	
SIOTX_DEVTYPE_SET	54	10
SIOTX_DEVTYPEAFTERCONV	38	
SIOTX_DEVTYPEAFTERLOCATE	30	
SIOTX_DIAGNOSTICFLAGS	40	
SIOTX_DIAGNOSTICS	20	
SIOTX_EAVEXCLUDECOUNT	50	
SIOTX_EDL_FOR_DASD_CATLGD_DS	54	40
SIOTX_IEFOPZNEW	54	02
SIOTX_IEFOPZOLD	54	04

Table 464. Cross Reference for IEFSIOTX (continued)

Name	Offset	Hex Tag
SIOTX_IEFTAPE_PTR	58	
SIOTX_IEFTAPE_SVA	5D	
SIOTX_INPUTSWCOPIED	40	40
SIOTX_JFCB	B0	
SIOTX_MASK_BYTE1	C0	
SIOTX_MASK_BYTE2	C1	
SIOTX_MASK_BYTE3	C2	
SIOTX_MASK_BYTE4	C3	
SIOTX_MASK_WORD1	C0	
SIOTX_MSKBSLM	C0	80
SIOTX_NO_DSTAB	54	08
SIOTX_SIOT	0	
SIOTX_SIOT_FLAGS	54	
SIOTX_SIOTCVTDAFTERCONV	40	80
SIOTX_TDSCOMP	C6	
SIOTX_TDSI	C4	
SIOTX_TDSMEDIA	C5	
SIOTX_TDSREC	C4	
SIOTX_TDSSPEC	C7	
SIOTX_TMPDSN_JFCBDSN_UPDATED	54	20
SIOTX_UNAFF_PTR	10	
SIOTX_UNAFF_SVA	9	
SIOTX_UNAFF_SVA_WORD	8	
SIOTX_UNAFF_TOKEN	8	
SIOTX_UNITNAMEAFTERCONV	38	
SIOTX_UNITNAMEAFTERDB401	28	
SIOTX_UNITNAMEAFTERLOCATE	30	
SIOTX_UNITNAMEONINPUT	20	
SIOTX_VOLSINCON_PTR	18	

## IEFSJDKY information

### IEFSJDKY programming interface information

IEFSJDKY is a programming interface.

INCLUDE ONLY

### IEFSJDKY heading information

**Common name:** Scheduler JCL Facility (SJF) / Dynamic Allocation keys

**Macro ID:** IEFSJDKY

**DSECT name:** None

**Owning component:** Scheduler JCL Facility (BB131)

**Eye-catcher ID:** None

**Storage attributes:** Subpool: N/A  
Key: N/A  
Residency: N/A

**Size:** N/A  
FREQUENCY = N/A

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** None

**Function:** This macro provides the constants for JDT defined keywords needed by the caller of Dynamic Allocation.

## IEFSJDKY mapping

Table 465. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
SJF DD ALLOCATION KEYS					
0	(0)	BITSTRING	0	SJKYCNTL	"X'8003'" CNTL
0	(0)	BITSTRING	0	SJKYSTCL	"X'8004'" STORCLAS
0	(0)	BITSTRING	0	SJKYMGCL	"X'8005'" MGMTCLAS
0	(0)	BITSTRING	0	SJKYDACL	"X'8006'" DATACLAS
0	(0)	BITSTRING	0	SJKYRECO	"X'800B'" RECORG
Values for RECORG keyword					
		1... ..		SJVLROKS	"X'80'" KS - Key sequence
		.1... ..		SJVLROES	"X'40'" ES - Entry sequence
		..1. ....		SJVLRRORR	"X'20'" RR - Relative record
		...1 ....		SJVLROLS	"X'10'" LS - Linear space
0	(0)	BITSTRING	0	SJKYKEYO	"X'800C'" KEYOFF
0	(0)	BITSTRING	0	SJKYREFD	"X'800D'" REFDD
0	(0)	BITSTRING	0	SJKYSECM	"X'800E'" SECMODEL
Value for GENERIC option of SECMODEL (parameter #2)					
		1... ..		SJVLGENR	"X'80'" Generic option
0	(0)	BITSTRING	0	SJKYLIKE	"X'800F'" LIKE
0	(0)	BITSTRING	0	SJKYAVGR	"X'8010'" AVGREC
Values for AVGREC keyword					
		1... ..		SJVLARUN	"X'80'" U - units (ie times 1)
		.1... ..		SJVLARKI	"X'40'" K - kilo (ie times 1000)

Table 465. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		SJVLARME	"X'20'" M - Mega (ie times 1 million)
0	(0)	BITSTRING	0	SJKYDSNT	"X'8012'" DSNTYPE
Values for DSNTYPE keyword					
		1... ....		SJVLDTLI	"X'80'" LIBRARY
		.1.. ....		SJVLDPD	"X'40'" PDS
		..1. ....		SJVLPIPE	"X'20'" PIPE
		...1 ....		SJVLHFSI	"X'10'" HFS
		.... 1...		SJVLEXR	"X'08'" EXTREQ
		.... .1..		SJVLEXP	"X'04'" EXTPREF
		.... ..1.		SJVLBASC	"X'02'" BASIC
		.... ...1		SJVLLARG	"X'01'" LARGE
0	(0)	BITSTRING	0	SJKYSPIN	"X'8013'" SPIN
Values for SPIN keyword					
		1... ....		SJVLSPUN	"X'80'" UNALLOC
		.1.. ....		SJVLSPNO	"X'40'" NO
0	(0)	BITSTRING	0	SJKYSEGM	"X'8014'" SEGMENT
0	(0)	BITSTRING	0	SJKYPATH	"X'8017'" PATH
0	(0)	BITSTRING	0	SJKYPOPT	"X'8018'" PATHOPTS
Values for PATHOPTS keyword					
0	(0)	BITSTRING	0	SJVLSYNC	"X'00000100'" OSYNC
		11.. ....		SJVLCEXL	"X'000000C0'" OCREXCL
		1... ....		SJVLCREA	"X'00000080'" OCREAT
		.1.. ....		SJVLEXCL	"X'00000040'" OEXCL
		..1. ....		SJVLNOCT	"X'00000020'" ONOCTTY
		...1 ....		SJVLTRUN	"X'00000010'" OTRUNC
		.... 1...		SJVLAPPE	"X'00000008'" OAPPEND
		.... .1..		SJVLNBK	"X'00000004'" ONONBLOCK
		.... ..11		SJVLRDWR	"X'00000003'" ORDWR
		.... ..1.		SJVLRDON	"X'00000002'" ORDONLY
		.... ...1		SJVLWDON	"X'00000001'" OWRONLY
0	(0)	BITSTRING	0	SJKYPMDE	"X'8019'" PATHMODE
Values for PATHMODE keyword					
0	(0)	BITSTRING	0	SJVLSUID	"X'00000800'" SISUID
0	(0)	BITSTRING	0	SJVLSGID	"X'00000400'" SISGID
0	(0)	BITSTRING	0	SJVLUSR	"X'00000100'" SIRUSR
		1... ....		SJVLWUSR	"X'00000080'" SIWUSR
		.1.. ....		SJVLXUSR	"X'00000040'" SIXUSR
0	(0)	BITSTRING	0	SJVLRWXU	"X'000001C0'" SIRWXU
		..1. ....		SJVLGRP	"X'00000020'" SIRGRP
		...1 ....		SJVLWGRP	"X'00000010'" SIWGRP
		.... 1...		SJVLXGRP	"X'00000008'" SIXGRP

Table 465. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..11 1...		SJVLRWXG	"X'00000038'" SIRWXG
		.... .1...		SJVLROTH	"X'00000004'" SIROTH
		.... ..1.		SJVLWOTH	"X'00000002'" SIWOTH
		.... ...1		SJVLXOTH	"X'00000001'" SIXOTH
		.... .111		SJVLRWX0	"X'00000007'" SIRWX0
0	(0)	BITSTRING	0	SJKYPNDS	"X'801A'" PATHDISP - Normal Disposition
0	(0)	BITSTRING	0	SJKYPCDS	"X'801B'" PATHDISP - Conditional Disposition
Values for PATHDISP keyword					
		.... 1...		SJVLKEEP	"X'08'" KEEP
		.... .1...		SJVLDELE	"X'04'" DELETE
0	(0)	BITSTRING	0	SJKYRLS	"X'801C'" RLS - Record Level Sharing
Values for RLS keyword					
		1... ....		SJVLNRI	"X'80'" NRI
		.1... ....		SJVLCCR	"X'40'" CR
		..1. ....		SJVLCRE	"X'20'" CRE
0	(0)	BITSTRING	0	SJKYFDAT	"X'801D'" FILEDATA - file organization
Values for FILEDATA keyword					
		1... ....		SJVLBIN	"X'80'" BINARY
		.1... ....		SJVLTEXT	"X'40'" TEXT
		..1. ....		SJVLREC	"X'20'" RECORD
0	(0)	BITSTRING	0	SJKYLGST	"X'801F'" LGSTREAM
0	(0)	BITSTRING	0	SJKYDCCS	"X'8020'" CCSID
0	(0)	BITSTRING	0	SJKYBSLM	"X'8022'" BLKSZLIM
0	(0)	BITSTRING	0	SJKYKYL1	"X'8023'" KEYLABL1
0	(0)	BITSTRING	0	SJKYKYL2	"X'8024'" KEYLABL2
0	(0)	BITSTRING	0	SJKYKYC1	"X'8025'" KEYENCD1
Values for KEYENCD1 keyword					
		11.1 ..11		SJVLKE1L	"X'D3'" L - Label encoding
		11.. 1...		SJVLKE1H	"X'C8'" H - Hash encoding
0	(0)	BITSTRING	0	SJKYKYC2	"X'8026'" KEYENCD2
Values for KEYENCD2 keyword					
		11.1 ..11		SJVLKE2L	"X'D3'" L - Label encoding
		11.. 1...		SJVLKE2H	"X'C8'" H - Hash encoding
0	(0)	BITSTRING	0	SJKYEATT	"X'8028'" EATTR
Values for EATTR keyword					
		.... ...1		SJVL Eaton	"X'01'" 0000 0001b - NO
		.... ..1.		SJVL Eaton	"X'02'" 0000 0010b - OPT



Table 465. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	SJKYFRVL	"X'8029'" FREEVOL
Values for FREEVOL keyword					
		.... ...1		SJVLFRVE	"X'01'" 0000 0001b - END
		.... ...1.		SJVLFRVV	"X'02'" 0000 0010b - EOV
0	(0)	BITSTRING	0	SJKYSPI2	"X'802A'" SPIN second parm, SPIN INTERVAL
0	(0)	BITSTRING	0	SJKYSYML	"X'802B'" SYMLIST ON DD
0	(0)	BITSTRING	0	SJKYDSNV	"X'802C'" DSNTYPE version
0	(0)	BITSTRING	0	SJKYMAXG	"X'802D'" MAXGENS
0	(0)	BITSTRING	0	SJKYGDGO	"X'802E'" GDGORDER - GDG-all concatenation order
Values for GDGORDER keyword					
		1... ....		SJVLGDGC	"X'80'" USECATLG
		.1... ....		SJVLGDGL	"X'40'" LIFO
		..1. ....		SJVLGDGF	"X'20'" FIFO
0	(0)	BITSTRING	0	SJKYROAC	"X'8030'" ROACCESS - read-only access
Values for ROACCESS first parm keyword					
		.... ...1		SJVLROAC_ALLOW	"X'01'" ROACCESS ALLOW
		.... ...1.		SJVLROAC_DISALLOW	"X'02'" ROACCESS DISALLOW
0	(0)	BITSTRING	0	SJKYROA2	"X'8031'" ROACCESS - second parm
Values for ROACCESS second parm keyword					
		.... ...1		SJVLROA2_EXTLOCK	"X'01'" ROACCESS Extent serialization
		.... ...1.		SJVLROA2_TRKLOCK	"X'02'" ROACCESS Track serialization
0	(0)	BITSTRING	0	SJKYDKYL	"X'8032'" DSKEYLBL - Data set encryption key label

Table 466. Cross Reference for IEFSJDKY

Name	Offset	Hex Tag
SJKYAVGR	0	8010
SJKYBSLM	0	8022
SJKYCNTL	0	8003
SJKYDACL	0	8006
SJKYDCCS	0	8020
SJKYDKYL	0	8032
SJKYDSNT	0	8012
SJKYDSNV	0	802C
SJKYEATT	0	8028
SJKYFDAT	0	801D
SJKYFRVL	0	8029
SJKYGDGO	0	802E

Table 466. Cross Reference for IEF SJDKY (continued)

Name	Offset	Hex Tag
SJKYKEY0	0	800C
SJKYKYC1	0	8025
SJKYKYC2	0	8026
SJKYKYL1	0	8023
SJKYKYL2	0	8024
SJKYLGST	0	801F
SJKYLIKE	0	800F
SJKYMAXG	0	802D
SJKYMGCL	0	8005
SJKYPATH	0	8017
SJKYPCDS	0	801B
SJKYPMDE	0	8019
SJKYPNDS	0	801A
SJKYPOPT	0	8018
SJKYRECO	0	800B
SJKYREFD	0	800D
SJKYRLS	0	801C
SJKYROAC	0	8030
SJKYROA2	0	8031
SJKYSECM	0	800E
SJKYSEGM	0	8014
SJKYSPIN	0	8013
SJKYSPI2	0	802A
SJKYSTCL	0	8004
SJKYSYML	0	802B
SJVLAPPE	0	8
SJVLARKI	0	40
SJVLARME	0	20
SJVLARUN	0	80
SJVLBASC	0	2
SJVLBIN	0	80
SJVLCEXL	0	C0
SJVLCR	0	40
SJVLCRE	0	20
SJVLCREA	0	80
SJVLDELE	0	4
SJVLDTLI	0	80
SJVLDTPD	0	40
SJVLEATN	0	1

Table 466. Cross Reference for IEF SJDKY (continued)

Name	Offset	Hex Tag
SJVL EATO	0	2
SJVL EXCL	0	40
SJVL EXP	0	4
SJVL EXR	0	8
SJVL FRVE	0	1
SJVL FRVV	0	2
SJVL GDGC	0	80
SJVL GDGF	0	20
SJVL GDGL	0	40
SJVL GENR	0	80
SJVL HFSI	0	10
SJVL KEEP	0	8
SJVL KE1H	0	C8
SJVL KE1L	0	D3
SJVL KE2H	0	C8
SJVL KE2L	0	D3
SJVL LARG	0	1
SJVL NBLK	0	4
SJVL NOCT	0	20
SJVL NRI	0	80
SJVL PIPE	0	20
SJVL RDON	0	2
SJVL RDWR	0	3
SJVL REC	0	20
SJVL RGRP	0	20
SJVL ROAC_ALLOW	0	1
SJVL ROAC_DISALLOW	0	2
SJVL ROA2_EXTLOCK	0	1
SJVL ROA2_TRKLOCK	0	2
SJVL ROES	0	40
SJVL ROKS	0	80
SJVL ROLS	0	10
SJVL RORR	0	20
SJVL ROTH	0	4
SJVL RUSR	0	100
SJVL RWXG	0	38
SJVL RWXO	0	7
SJVL RWXU	0	1C0
SJVL SGID	0	400

Table 466. Cross Reference for IEF SJDKY (continued)

Name	Offset	Hex Tag
SJVLSPNO	0	40
SJVLSPUN	0	80
SJVLSUID	0	800
SJVLSYNC	0	100
SJVLTEXT	0	40
SJVLTRUN	0	10
SJVLWDON	0	1
SJVLWGRP	0	10
SJVLWOTH	0	2
SJVLWUSR	0	80
SJVLXGRP	0	8
SJVLX0TH	0	1
SJVLXUSR	0	40

## IEFSJOKY information

### IEFSJOKY programming interface information

IEFSJOKY is a programming interface.

### IEFSJOKY heading information

<b>Common name:</b>	Scheduler JCL Facility (SJF) Output Descriptor Keys
<b>Macro ID:</b>	IEFSJOKY
<b>DSECT name:</b>	None
<b>Owning component:</b>	SJF (BB131)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A FREQUENCY = N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	This macro provides the constants for JDT defined keywords needed by users of Output Descriptor SWB chains. Macro IEFDOKEY is invoked so the keys defined in dynamic output are not repeated here.

## IEFSJOKY mapping

Table 467. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
A - New macro defined as part of Enterprise II support. A - Added new MERGE Keyword A - Added new IPADDR Keyword C - Make CDPI compliant C - Added comment that SJOKMERG ('8003'x) key is also defined in IEFDOKEY as DOMERGE. This is because the MERGE keyword was changed from (IBM) internal only to					
external. Keeping the the key defined in both macros ensures no regression compile failures if SJOKMERG was removed from here. A - Added IEFDOKEY for data areas build C - Add additional logic around SJOKMERG, misc comment changes. %GOTO SJOKYDEF; Key Constants for Output Descriptors Not Allowed Through Dynamic Output					
0	(0)	BITSTRING	0	SJOKSTNR	"X'8001'" JES3STNR
0	(0)	BITSTRING	0	SJOKMERG	"X'8003'" MERGE (also defined in IEFDOKEY)
0	(0)	BITSTRING	0	SJOKIPAD	"X'8005'" IPADDR

## IEFUNLXT information

### IEFUNLXT programming interface information

IEFUNLXT is a programming interface.

### IEFUNLXT heading information

<b>Common name:</b>	IEF_ALLC_UNLOAD exit parameter list
<b>Macro ID:</b>	IEFUNLXT
<b>DSECT name:</b>	UNLXT
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	UNLXT Offset: 0 Length: 6
<b>Storage attributes:</b>	Subpool: 230 Key: 1 Residency: Any
<b>Size:</b>	X'20' bytes.
<b>Created by:</b>	IEFHBOFF, IEFHBUNL, IEFAB49C
<b>Pointed to by:</b>	Register 1 on entry to the IEF_ALLC_UNLOAD exit
<b>Serialization:</b>	None
<b>Function:</b>	Contains area for parmlist of IEF_ALLC_UNLOAD exit

## IEFUNLXT mapping

Table 468. Structure UNLXT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UNLXT	
0	(0)	CHARACTER	6	UNLXT_ID	Eye-catcher UNLXT
6	(6)	SIGNED	2	UNLXT_VERSION	Version
8	(8)	SIGNED	2	UNLXT_LENGTH	Length
10	(A)	SIGNED	2	UNLXT_FN	Function code
12	(C)	BITSTRING	4	UNLXT_FLAGS	Flags
12	(C)	BITSTRING	1	UNLXT_ENQ_FLAGS	Flags indicating which ENQs are held when calling the exit
<p>The following flags indicate ENQs that are held to serialize the unload. However, the current task (the one invoking the exit) may not be the holder of the ENQ, since in some cases the ENQ is obtained by another task on behalf of the unload process.</p> <p>Bit definitions:</p>					
		1... ....		UNLXT_CHNGDEVS_HELD	"X'80'" SYSIEFSD/CHNGDEVS is held by the caller of the exit
		.1.. ....		UNLXT_VARYDEV_HELD	"X'40'" SYSIEFSD/VARYDEV is held by the caller of the exit
		..1. ....		UNLXT_Q4_HELD	"X'20'" SYSIEFSD/Q4 is held by the caller of the exit
16	(10)	ADDRESS	4	UNLXT_UCB	UCB pointer of device being unloaded
20	(14)	BITSTRING	1	UNLXT_SOURCE	Source of unload. Will always contain a value at z/OS 2.3. Prior to z/OS 2.3, field will contain zeros when 0A49722 is not installed.
21	(15)	CHARACTER	11		Reserved and available
Eyecatcher and version constants					
21	(15)	X'1'	0	KUNLXT_VERSION_1	"1" Version number
Function constants in UNLXT_fn					
21	(15)	X'1'	0	KUNLXT_BEGINUNLOAD	"1" Function indicator - Begin unload
21	(15)	X'2'	0	KUNLXT_ENDUNLOAD	"2" Function indicator - End unload
21	(15)	X'3'	0	KUNLXT_ERROR	"3" Function indicator - Error occurred during unload
Unload source constants in UNLXT_Source					
21	(15)	X'1'	0	KUNLXT_VARY_OFFLINE	"1" Unload performed on behalf of offline request (VARY OFFLINE command or comparable IEEVARYD request)
21	(15)	X'2'	0	KUNLXT_UNLOAD_CMD	"2" Unload performed on behalf of UNLOAD command
21	(15)	X'3'	0	KUNLXT_NONALLOC	"3" Unload performed on behalf of a non-Allocation requestor
21	(15)	X'20'	0	UNLXT_LEN	"*-UNLXT"

Table 469. Cross Reference for IEFUNLXT

Name	Offset	Hex Tag
KUNLXT_BEGINUNLOAD	15	1
KUNLXT_ENDUNLOAD	15	2

Table 469. Cross Reference for IEFUNLXT (continued)

Name	Offset	Hex Tag
KUNLXT_ERROR	15	3
KUNLXT_NONALLOC	15	3
KUNLXT_UNLOAD_CMD	15	2
KUNLXT_VARY_OFFLINE	15	1
KUNLXT_VERSION_1	15	1
UNLXT	0	
UNLXT_CHNGDEVS_HELD	C	80
UNLXT_ENQ_FLAGS	C	
UNLXT_FLAGS	C	
UNLXT_FN	A	
UNLXT_ID	0	
UNLXT_LEN	15	20
UNLXT_LENGTH	8	
UNLXT_Q4_HELD	C	20
UNLXT_SOURCE	14	
UNLXT_UCB	10	
UNLXT_VARYDEV_HELD	C	40
UNLXT_VERSION	6	

## IEFZB4D2 information

### IEFZB4D2 programming interface information

IEFZB4D2 is a programming interface.

### IEFZB4D2 heading information

<b>Common name:</b>	Dynamic Allocation Key Definition Table
<b>Macro ID:</b>	IEFZB4D2
<b>DSECT name:</b>	SVC99KYS
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None

**Function:**

This macro defines the Dynamic Allocation keys for each of the Dynamic Allocation functions. The keys are used in the text unit input to Dynamic Allocation. A key identifies the information being passed in a particular text unit. A key is two bytes in length. The names for the keys consist of:

- The character 'D' representing Dynamic Allocation.
- Characters representing the Dynamic Allocation function. The functions are represented by these characters:
  - 'AL' for allocation,
  - 'UN' for unallocation,
  - 'CC' for concatenation,
  - 'DC' for deconcatenation,
  - 'RI' for remove in-use,
  - 'DN' for ddname allocation,
  - 'IN' for information retrieval input, and
  - 'INR' for information retrieval output.
- Descriptive characters (up to five).

**IEFZB4D2 mapping**

Table 470. Structure SVC99KYS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SVC99KYS	
KEYS FOR ALLOCATION FUNCTION Note: see the Dependencies section of the prolog when adding new keys to this section.					
		.... ..1		DALDDNAM	"X'0001'" DDNAME
		.... ..1.		DALDSNAM	"X'0002'" DSNAME
		.... ..11		DALMEMBR	"X'0003'" MEMBER NAME
		.... .1..		DALSTATS	"X'0004'" DATA SET STATUS
		.... .1.1		DALNDISP	"X'0005'" DATA SET NORMAL DISPOSITION
		.... .11.		DALCDISP	"X'0006'" DATA SET CONDITIONAL DISP
		.... .111		DALTRK	"X'0007'" TRACK SPACE TYPE
		.... 1...		DALCYL	"X'0008'" CYLINDER SPACE TYPE
		.... 1..1		DALBLKLN	"X'0009'" AVERAGE DATA BLOCK LENGTH
		.... 1.1.		DALPRIME	"X'000A'" PRIMARY SPACE QUANTITY
		.... 1.11		DALSECND	"X'000B'" SECONDARY SPACE QUANTITY
		.... 11..		DALDIR	"X'000C'" DIRECTORY SPACE QUANTITY
		.... 11.1		DALRLSE	"X'000D'" UNUSED SPACE RELEASE
		.... 111.		DALSPFRM	"X'000E'" CONTIG,MXIG,ALX SPACE FORMAT
		.... 1111		DALROUND	"X'000F'" WHOLE CYLINDER (ROUND) SPACE
		...1 ....		DALVLSER	"X'0010'" VOLUME SERIAL
		...1 ...1		DALPRIVT	"X'0011'" PRIVATE VOLUME
		...1 ..1.		DALVLSEQ	"X'0012'" VOL SEQUENCE NUMBER
		...1 ..11		DALVLCNT	"X'0013'" VOLUME COUNT
		...1 .1..		DALVLRDS	"X'0014'" VOLUME REFERENCE TO DSNAME
		...1 .1.1		DALUNIT	"X'0015'" UNIT DESCRIPTION
		...1 .11.		DALUNCNT	"X'0016'" UNIT COUNT



Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 .111		DALPARAL	"X'0017'" PARALLEL MOUNT
		...1 1...		DALSYSOU	"X'0018'" SYSOUT
		...1 1..1		DALSPGNM	"X'0019'" SYSOUT PROGRAM NAME
		...1 1.1.		DALSFMNO	"X'001A'" SYSOUT FORM NUMBER
		...1 1.11		DALOUTLM	"X'001B'" OUTPUT LIMIT
		...1 11..		DALCLOSE	"X'001C'" UNALLOCATE AT CLOSE
		...1 11.1		DALCOPYS	"X'001D'" SYSOUT COPIES
		...1 111.		DALLABEL	"X'001E'" LABEL TYPE
		...1 1111		DALDSSEQ	"X'001F'" DATA SET SEQUENCE NUMBER
		..1. ....		DALPASPR	"X'0020'" PASSWORD PROTECTION
		..1. ...1		DALINOUT	"X'0021'" INPUT ONLY OR OUTPUT ONLY
		..1. ...1.		DALEXPDT	"X'0022'" 2 DIGIT YEAR EXPIRATION DATE
		..1. ..11		DALRETPD	"X'0023'" RETENTION PERIOD
		..1. .1..		DALDUMMY	"X'0024'" DUMMY ALLOCATION
		..1. .1.1		DALFCBIM	"X'0025'" FCB IMAGE-ID
		..1. .11.		DALFCBAV	"X'0026'" FCB FORM ALIGNMENT,IMAGE VERIFY
		..1. .111		DALQNAME	"X'0027'" QNAME ALLOCATION
		..1. 1...		DALTERM	"X'0028'" TERMINAL ALLOCATION
		..1. 1..1		DALUCS	"X'0029'" UNIVERSAL CHARACTER SET
		..1. 1.1.		DALUFOLD	"X'002A'" UCS FOLD MODE
		..1. 1.11		DALUVRFY	"X'002B'" UCS VERIFY CHARACTER SET
		..1. 11..		DALDCBDS	"X'002C'" DCB DSNAM REFERENCE
		..1. 11.1		DALDCBDD	"X'002D'" DCB DDNAME REFERENCE
		..1. 111.		DALBFALN	"X'002E'" BUFFER ALIGNMENT
		..1. 1111		DALBFTEK	"X'002F'" BUFFERING TECHNIQUE
		..11 ....		DALBLKSZ	"X'0030'" BLOCKSIZE
		..11 ...1		DALBUFIN	"X'0031'" NUMBER OF INPUT BUFFERS
		..11 ...1.		DALBUFL	"X'0032'" BUFFER LENGTH
		..11 ..11		DALBUFMX	"X'0033'" MAXIMUM NUMBER OF BUFFERS
		..11 .1..		DALBUFNO	"X'0034'" NUMBER OF DCB BUFFERS
		..11 .1.1		DALBUFOF	"X'0035'" BUFFER OFFSET
		..11 .11.		DALBUFOU	"X'0036'" NUMBER OF OUTPUT BUFFERS
		..11 .111		DALBUFRQ	"X'0037'" NUMBER OF GET MACRO BUFFERS
		..11 1...		DALBUFSZ	"X'0038'" LINE BUFFER SIZE
		..11 1..1		DALCODE	"X'0039'" PAPER TAPE CODE
		..11 1.1.		DALCPRI	"X'003A'" SEND/RECEIVE PRIORITY
		..11 1.11		DALDEN	"X'003B'" TAPE DENSITY
		..11 11..		DALDSORG	"X'003C'" DATA SET ORGANIZATION
		..11 11.1		DALEROPT	"X'003D'" ERROR OPTIONS
		..11 111.		DALGNCP	"X'003E'" NO. OF GAM I/O BEFORE WAIT
		..11 1111		DALINTVL	"X'003F'" POLLING INTERVAL
		.1.. ....		DALKYLEN	"X'0040'" DATA SET KEYS LENGTH
		.1.. ...1		DALLIMCT	"X'0041'" SEARCH LIMIT
		.1.. ...1.		DALLRECL	"X'0042'" LOGICAL RECORD LENGTH

Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. .11		DALMODE	"X'0043'" CARD READER/PUNCH MODE
		.1.. .1..		DALNCP	"X'0044'" NO. READ/WRITE BEFORE CHECK
		.1.. .1.1		DALOPTCD	"X'0045'" OPTIONAL SERVICES
		.1.. .11.		DALPCIR	"X'0046'" RECEIVING PCI
		.1.. .111		DALPCIS	"X'0047'" SENDING PCI
		.1.. 1...		DALPRTSP	"X'0048'" PRINTER LINE SPACING
		.1.. 1..1		DALRECFM	"X'0049'" RECORD FORMAT
		.1.. 1.1.		DALRSRVF	"X'004A'" FIRST BUFFER RESERVE
		.1.. 1.11		DALRSRVS	"X'004B'" SECONDARY BUFFER RESERVE
		.1.. 11..		DALSOWA	"X'004C'" TCAM USER WORK AREA SIZE
		.1.. 11.1		DALSTACK	"X'004D'" STACKER BIN
		.1.. 111.		DALTHRS	"X'004E'" MESSAGE QUEUE PERCENTAGE
		.1.. 1111		DALTRTCH	"X'004F'" TAPE RECORDING TECHNOLOGY
		.1.1 ....		DALPASSW	"X'0050'" PASSWORD
		.1.1 ...1		DALIPLTX	"X'0051'" IPL TEXT ID
		.1.1 ..1.		DALPERMA	"X'0052'" PERMANENTLY ALLOCATED ATTRIB
		.1.1 ..11		DALCNVRT	"X'0053'" CONVERTIBLE ATTRIBUTE
		.1.1 .1..		DALDIAGN	"X'0054'" OPEN/CLOSE/EOV DIAGNOSTIC TRACE
		.1.1 .1.1		DALRTDDN	"X'0055'" RETURN DDNAME
		.1.1 .11.		DALRTDSN	"X'0056'" RETURN DSNAME
		.1.1 .111		DALRTORG	"X'0057'" RETURN D.S. ORGANIZATION
		.1.1 1...		DALSUSER	"X'0058'" SYSOUT REMOTE USER
		.1.1 1..1		DALSHOLD	"X'0059'" SYSOUT HOLD QUEUE
		.1.1 1.1.		DALFUNC	"X'005A'" D.S. TYPE FOR 3525 CARD DEVICE
		.1.1 1.11		DALFRID	"X'005B'" IMAGELIB MEMBER FOR SHARK
		.1.1 11..		DALSSREQ	"X'005C'" SUBSYSTEM REQUEST
		.1.1 11.1		DALRTVOL	"X'005D'" RETURN VOLUME SERIAL
		.1.1 111.		DALMSVGP	"X'005E'" MSVGP FOR 3330V
		.1.1 1111		DALSSNM	"X'005F'" SUBSYSTEM NAME REQUEST
		.11. ....		DALSSPRM	"X'0060'" SUBSYSTEM PARAMETERS
		.11. ...1		DALPROT	"X'0061'" RACF PROTECT FEATURE
		.11. ..1.		DALSSATT	"X'0062'" SUBSYSTEM ATTRIBUTE
		.11. ..11		DALUSRID	"X'0063'" SYSOUT USER ID
		.11. .1..		DALBURST	"X'0064'" BURSTER-TRIMMER-STACKER
		.11. .1.1		DALCHARS	"X'0065'" CHAR ARRANGEMENT TABLE
		.11. .11.		DALCOPYG	"X'0066'" COPY GROUP VALUES
		.11. .111		DALFFORM	"X'0067'" FLASH FORMS OVERLAY
		.11. 1...		DALFCNT	"X'0068'" FLASH FORMS OVERLAY COUNT
		.11. 1..1		DALMMOD	"X'0069'" COPY MODIFICATION MODULE
		.11. 1.1.		DALMTRC	"X'006A'" TABLE REFERENCE CHARACTER
		.11. 1.11		DALLRECK	"X'006B'" LRECL IN MULT OF 1K FORMAT
		.11. 11..		DALDEFER	"X'006C'" DEFER MOUNT UNTIL OPEN
		.11. 11.1		DALEXPDL	"X'006D'" 4 DIGIT YEAR EXP. DATE

Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.11. 111.		DALBRTKN	"X'006E'" Browse token supplied
		.11. 1111		DALINCHG	"X'006F'" Volume Interchange Attributes
		.111 ....		DALOVAFF	"X'0070'" Tell JES to override system affinity for INTRDR
		.111 ...1		DALRTCTK	"X'0071'" Return Allocation Sysout Client Token
		.111 ..1.		DALKILO	"X'0072'" BLKSIZE OF KILOBYTE
		.111 ..11		DALMEG	"X'0073'" BLKSIZE OF MEGABYTE
		.111 .1..		DALGIG	"X'0074'" BLKSIZE OF GIGABYTE
		.111 .1.1		DALUASSR	"X'0075'" Unauthorized subsystem request
		.111 .11.		DALSMSHR	"X'0076'" unitname to be honored on an SMS tape library request
		.111 .111		DALUNQDS	"X'0077'" Uniquely allocated temporary data set
		.111 1...		DALREQIEFOPZ	"X'0078'" Request IEFOPZ processing
		.111 1..1		DALINSDD	"X'0079'" Insulated DD request
		.111 1.1.		DALNOSEC	"X'007A'" Bypass security checking
		.111 1.11		DALRETINFO	"X'007B'" Return allocation information
		.111 11..		DALRETIEFOPZNEWDSN	"X'007C'" Return IEFOPZ-new data set name
		.111 11.1		DALRETIEFOPZNEWVOL	"X'007D'" Return IEFOPZ-new volume serial
0	(0)	BITSTRING	0	DALACODE	"X'8001'" ACCESSIBILITY CODE
0	(0)	BITSTRING	0	DALOUTPT	"X'8002'" OUTPUT REFERENCE
JDT defined Allocation keys SJF DD ALLOCATION KEYS					
0	(0)	BITSTRING	0	DALCNTL	"X'8003'" CNTL
0	(0)	BITSTRING	0	DALSTCL	"X'8004'" STORCLAS
0	(0)	BITSTRING	0	DALMGCL	"X'8005'" MGMTCLAS
0	(0)	BITSTRING	0	DALDACL	"X'8006'" DATACLAS
0	(0)	BITSTRING	0	DALRECO	"X'800B'" RECORG
0	(0)	BITSTRING	0	DALKEYO	"X'800C'" KEYOFF
0	(0)	BITSTRING	0	DALREFD	"X'800D'" REFDD
0	(0)	BITSTRING	0	DALSECM	"X'800E'" SECMODEL
0	(0)	BITSTRING	0	DALLIKE	"X'800F'" LIKE
0	(0)	BITSTRING	0	DALAVGR	"X'8010'" AVGREC
0	(0)	BITSTRING	0	DALDSNT	"X'8012'" DSNTYPE
0	(0)	BITSTRING	0	DALSPIN	"X'8013'" SPIN
0	(0)	BITSTRING	0	DALSEGM	"X'8014'" SEGMENT
0	(0)	BITSTRING	0	DALPATH	"X'8017'" PATH
0	(0)	BITSTRING	0	DALPOPT	"X'8018'" PATHOPTS
0	(0)	BITSTRING	0	DALPMDE	"X'8019'" PATHMODE
0	(0)	BITSTRING	0	DALPNDS	"X'801A'" PATHDISP - Normal Disposition
0	(0)	BITSTRING	0	DALPCDS	"X'801B'" PATHDISP - Conditional Disposition

Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	DALRLS	"X'801C'" RLS - Record Level Sharing
0	(0)	BITSTRING	0	DALFDAT	"X'801D'" FILEDATA - file organization
0	(0)	BITSTRING	0	DALLGST	"X'801F'" LGSTREAM
0	(0)	BITSTRING	0	DALDCCS	"X'8020'" CCSID
0	(0)	BITSTRING	0	DALBSLM	"X'8022'" BLKSZLIM
0	(0)	BITSTRING	0	DALKYL1	"X'8023'" KEYLABL1
0	(0)	BITSTRING	0	DALKYL2	"X'8024'" KEYLABL2
0	(0)	BITSTRING	0	DALKYC1	"X'8025'" KEYENCD1
0	(0)	BITSTRING	0	DALKYC2	"X'8026'" KEYENCD2
0	(0)	BITSTRING	0	DALEATT	"X'8028'" EATTR
0	(0)	BITSTRING	0	DALFRVL	"X'8029'" FREEVOL
0	(0)	BITSTRING	0	DALSPI2	"X'802A'" SPIN second parm, SPIN INTERVAL
0	(0)	BITSTRING	0	DALSYML	"X'802B'" SYMLIST ON DD
0	(0)	BITSTRING	0	DALDSNV	"X'802C'" DSNTYPE version
0	(0)	BITSTRING	0	DALMAXG	"X'802D'" MAXGENS
0	(0)	BITSTRING	0	DALGDBG	"X'802E'" GDGORDER - GDG-all concatenation order
0	(0)	BITSTRING	0	DALROAC	"X'8030'" ROACCESS - read-only access
0	(0)	BITSTRING	0	DALROA2	"X'8031'" ROACCESS - second parm
0	(0)	BITSTRING	0	DALDKYL	"X'8032'" DSKEYLBL - Data set encryption key label
KEYS FOR CONCATENATION FUNCTION					
	.... ...1			DCCDDNAM	"X'0001'" DDNAMES
	.... .1..			DCCPERMC	"X'0004'" PERMANENTLY CONCATENATED
	.111 1..1			DCCINSDD	"X'0079'" Concatenate Insulated DDs
KEYS FOR DECONCATENATION FUNCTION					
	.... ...1			DDCDDNAM	"X'0001'" DDNAME
	.111 1..1			DDCINSDD	"X'0079'" Deconcatenate Insulated DD
KEYS FOR INFORMATION RETRIEVAL FUNCTION Note: see the Dependencies section of the prolog when adding new keys to this section.					
	.... ...1			DINDDNAM	"X'0001'" DDNAME
	.... .1.			DINDSNAM	"X'0002'" DSNAME
	.... .1..			DINRTDDN	"X'0004'" RETURN DDNAME
	.... .1.1			DINRTDSN	"X'0005'" RETURN DSNAME
	.... .11.			DINRTMEM	"X'0006'" RETURN MEMBER NAME
	.... .111			DINRTSTA	"X'0007'" RETURN DATA SET STATUS
	.... 1...			DINRTNDP	"X'0008'" RETURN NORMAL DISPOSITION
	.... 1..1			DINRTCDP	"X'0009'" RETURN CONDITIONAL DISP
	.... 1.1.			DINRTORG	"X'000A'" RETURN D.S. ORGANIZATION
	.... 1.11			DINRTLIM	"X'000B'" RETURN # TO NOT-IN-USE LIMIT
	.... 11..			DINRTATT	"X'000C'" RETURN DYN. ALLOC ATTRIBUTES

Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 11.1		DINRTLST	"X'000D'" RETURN LAST ENTRY INDICATION
		.... 111.		DINRTTYP	"X'000E'" RETURN S.D. TYPE INDICATION
		.... 1111		DINRELNO	"X'000F'" RELATIVE REQUEST NUMBER
		...1 ....		DINRTVOL	"X'0010'" Return First Volser
		...1 ...1		DINRTDDX	"X'0011'" Return DDname extended
		...1 ...1.		DINRLPOS	"X'0012'" Return Relative Position
		...1 ..11		DINRPNAM	"X'0013'" Return SYSOUT program name
JDT defined Information Retrieval output keys SJF DD INFORMATION RETRIEVAL KEYS					
0	(0)	BITSTRING	0	DINRCNTL	"X'C003'" CNTL
0	(0)	BITSTRING	0	DINRSTCL	"X'C004'" STORCLAS
0	(0)	BITSTRING	0	DINRMGCL	"X'C005'" MGMTCLAS
0	(0)	BITSTRING	0	DINRDACL	"X'C006'" DATACLAS
0	(0)	BITSTRING	0	DINRRECO	"X'C00B'" RECO RG
0	(0)	BITSTRING	0	DINRKEYO	"X'C00C'" KEYOFF
0	(0)	BITSTRING	0	DINRREFD	"X'C00D'" REFDD
0	(0)	BITSTRING	0	DINRSECM	"X'C00E'" SECMODEL
0	(0)	BITSTRING	0	DINRLIKE	"X'C00F'" LIKE
0	(0)	BITSTRING	0	DINRAVGR	"X'C010'" AVGREC
0	(0)	BITSTRING	0	DINRDSNT	"X'C012'" DSNTYPE
0	(0)	BITSTRING	0	DINRSPIN	"X'C013'" SPIN
0	(0)	BITSTRING	0	DINRSEGM	"X'C014'" SEGMENT
0	(0)	BITSTRING	0	DINRPATH	"X'C017'" PATH
0	(0)	BITSTRING	0	DINRPOPT	"X'C018'" PATHOPTS
0	(0)	BITSTRING	0	DINRPMDE	"X'C019'" PATHMODE
0	(0)	BITSTRING	0	DINRPNDS	"X'C01A'" NORMAL PATHDISP
0	(0)	BITSTRING	0	DINRCNDS	"X'C01B'" CONDITIONAL PATHDISP
0	(0)	BITSTRING	0	DINRPCDS	"X'C01B'" CONDITIONAL PATHDISP
0	(0)	BITSTRING	0	DINRFDAT	"X'C01D'" FILEDATA
0	(0)	BITSTRING	0	DINREATT	"X'C028'" EATTR
0	(0)	BITSTRING	0	DINRSPI2	"X'C02A'" SPIN interval
0	(0)	BITSTRING	0	DINRSYML	"X'C02B'" SYMLIST
0	(0)	BITSTRING	0	DINRDSNV	"X'C02C'" DSNTYPE version
0	(0)	BITSTRING	0	DINRMAXG	"X'C02D'" MAXGENS
0	(0)	BITSTRING	0	DINRGDGO	"X'C02E'" GDGORDER
0	(0)	BITSTRING	0	DINRROAC	"X'C030'" ROACCESS - first parm
0	(0)	BITSTRING	0	DINRROA2	"X'C031'" ROACCESS - second parm
0	(0)	BITSTRING	0	DINRDKYL	"X'C032'" DSKEYLBL
JDT defined Information Retrieval input keys SJF DD INFORMATION RETRIEVAL INPUT KEYS					
0	(0)	BITSTRING	0	DINPATH	"X'8017'" PATH
KEYS FOR REMOVE IN-USE FUNCTION					

Table 470. Structure SVC99KYS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		DRITCBAD	"X'0001'" TCB ADDRESS
		.... ...1.		DRICURNT	"X'0002'" CURRENT TASK OPTION
KEYS FOR DDNAME ALLOCATION FUNCTION					
		.... ...1		DDNDDNAM	"X'0001'" DDNAME
		.... ...1.		DDNRTDUM	"X'0002'" RETURN DUMMY D.S. INDICATION
KEYS FOR UNALLOCATION FUNCTION Note: see the Dependencies section of the prolog when adding new keys to this section.					
		.... ...1		DUNDDNAM	"X'0001'" DDNAME
		.... ...1.		DUNDSNAM	"X'0002'" DSNAME
		.... ...11		DUNMEMBR	"X'0003'" MEMBER NAME
		.... .1.1		DUNOVDSP	"X'0005'" OVERRIDING DISPOSITION
		.... .111		DUNUNALC	"X'0007'" UNALLOC OPTION
		.... 1...		DUNREMOV	"X'0008'" REMOVE OPTION
		.... 1.1.		DUNOVSNH	"X'000A'" OVERRIDING SYSOUT NOHOLD
		...1 1...		DUNOVCLS	"X'0018'" OVERRIDING SYSOUT CLASS
		.1.1 1...		DUNOVVSUS	"X'0058'" OVERRIDING SYSOUT NODE
		.1.1 1.1		DUNOVSHQ	"X'0059'" OVERRIDING SYSOUT HOLD QUEUE
		.11. ...11		DUNOVUID	"X'0063'" Overriding SYSOUT User ID
		.111 1..1		DUNINSDD	"X'0079'" Unallocate Insulated DD
		.111 1.1.		DUNNOSEC	"X'007A'" Bypass security checking
JDT defined Unallocation keys SJF DD UNALLOCATION KEYS					
0	(0)	BITSTRING	0	DUNSPIN	"X'8013'" SPIN
0	(0)	BITSTRING	0	DUNPATH	"X'8017'" PATH
0	(0)	BITSTRING	0	DUNOVVPS	"X'801A'" PATHDISP - Override Disposition
0	(0)	BITSTRING	0	DUNSPI2	"X'802A'" SPIN

Table 471. Cross Reference for IEFZB4D2

Name	Offset	Hex Tag
DALACODE	0	8001
DALAVGR	0	8010
DALBFALN	0	2E
DALBFTEK	0	2F
DALBLKLN	0	9
DALBLKSZ	0	30
DALBRTKN	0	6E
DALBSLM	0	8022
DALBUFIN	0	31
DALBUFL	0	32

Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DALBUFMX	0	33
DALBUFNO	0	34
DALBUFOF	0	35
DALBUFOU	0	36
DALBUFRQ	0	37
DALBUFSZ	0	38
DALBURST	0	64
DALCDISP	0	6
DALCHARS	0	65
DALCLOSE	0	1C
DALCNTL	0	8003
DALCNVRT	0	53
DALCODE	0	39
DALCOPYG	0	66
DALCOPYS	0	1D
DALCPRI	0	3A
DALCYL	0	8
DALDACL	0	8006
DALDCBDD	0	2D
DALDCBDS	0	2C
DALDCCS	0	8020
DALDDNAM	0	1
DALDEFER	0	6C
DALDEN	0	3B
DALDIAGN	0	54
DALDIR	0	C
DALDKYL	0	8032
DALDSNAM	0	2
DALDSNT	0	8012
DALDSNV	0	802C
DALDSORG	0	3C
DALDSSEQ	0	1F
DALDUMMY	0	24
DALEATT	0	8028
DALEROPT	0	3D
DALEXPDL	0	6D
DALEXPDT	0	22
DALFCBAV	0	26
DALFCBIM	0	25

Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DALFCNT	0	68
DALFDAT	0	801D
DALFFORM	0	67
DALFRID	0	5B
DALFRVL	0	8029
DALFUNC	0	5A
DALGDGO	0	802E
DALGIG	0	74
DALGNCP	0	3E
DALINCHG	0	6F
DALINOUT	0	21
DALINSDD	0	79
DALINTVL	0	3F
DALIPLTX	0	51
DALKEY0	0	800C
DALKILO	0	72
DALKYC1	0	8025
DALKYC2	0	8026
DALKYLEN	0	40
DALKYL1	0	8023
DALKYL2	0	8024
DALLABEL	0	1E
DALLGST	0	801F
DALLIKE	0	800F
DALLIMCT	0	41
DALLRECK	0	6B
DALLRECL	0	42
DALMAXG	0	802D
DALMEG	0	73
DALMEMBR	0	3
DALMGCL	0	8005
DALMMOD	0	69
DALMODE	0	43
DALMSVGP	0	5E
DALMTRC	0	6A
DALNCP	0	44
DALNDISP	0	5
DALNOSEC	0	7A
DALOPTCD	0	45



Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DALOUTLM	0	1B
DALOUTPT	0	8002
DALOVAFF	0	70
DALPARAL	0	17
DALPASPR	0	20
DALPASSW	0	50
DALPATH	0	8017
DALPCDS	0	801B
DALPCIR	0	46
DALPCIS	0	47
DALPERMA	0	52
DALPMDE	0	8019
DALPNDS	0	801A
DALPOPT	0	8018
DALPRIME	0	A
DALPRIVT	0	11
DALPROT	0	61
DALPRTSP	0	48
DALQNAME	0	27
DALRECFM	0	49
DALRECO	0	800B
DALREFD	0	800D
DALREQIEFOPZ	0	78
DALRETIEFOPZNEWDSN	0	7C
DALRETIEFOPZNEWVOL	0	7D
DALRETINFO	0	7B
DALRETPD	0	23
DALRLS	0	801C
DALRLSE	0	D
DALROAC	0	8030
DALROA2	0	8031
DALROUND	0	F
DALRSRVF	0	4A
DALRSRVS	0	4B
DALRTCTK	0	71
DALRTDDN	0	55
DALRTDSN	0	56
DALRTORG	0	57
DALRTVOL	0	5D

Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DALSECM	0	800E
DALSECND	0	B
DALSEGM	0	8014
DALSFMNO	0	1A
DALSHOLD	0	59
DALSMshr	0	76
DALSOWA	0	4C
DALSPFRM	0	E
DALSPGNM	0	19
DALSPIN	0	8013
DALSPI2	0	802A
DALSSATT	0	62
DALSSNM	0	5F
DALSSPRM	0	60
DALSSREQ	0	5C
DALSTACK	0	4D
DALSTATS	0	4
DALSTCL	0	8004
DALSUSER	0	58
DALSYML	0	802B
DALSYSOU	0	18
DALTERM	0	28
DALTHRSH	0	4E
DALTRK	0	7
DALTRTCH	0	4F
DALUASSR	0	75
DALUCS	0	29
DALUFOLD	0	2A
DALUNCNT	0	16
DALUNIT	0	15
DALUNQDS	0	77
DALUSRID	0	63
DALUVRFY	0	2B
DALVLCNT	0	13
DALVLRDS	0	14
DALVLSEQ	0	12
DALVLSER	0	10
DCCDDNAM	0	1
DCCINSDD	0	79

Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DCCPERMC	0	4
DDCDDNAM	0	1
DDCINSDD	0	79
DDNDDNAM	0	1
DDNRTDUM	0	2
DINDDNAM	0	1
DINDSNAM	0	2
DINPATH	0	8017
DINRAVGR	0	C010
DINRCNDS	0	C01B
DINRCNTL	0	C003
DINRDACL	0	C006
DINRDKYL	0	C032
DINRDSNT	0	C012
DINRDSNV	0	C02C
DINREATT	0	C028
DINRELNO	0	F
DINRFDAT	0	C01D
DINRGDGO	0	C02E
DINRKEYO	0	C00C
DINRLIKE	0	C00F
DINRLPOS	0	12
DINRMAGX	0	C02D
DINRMGCL	0	C005
DINRPATH	0	C017
DINRPCDS	0	C01B
DINRPMDE	0	C019
DINRPNAM	0	13
DINRPNDS	0	C01A
DINRPOPT	0	C018
DINRRECO	0	C00B
DINRREFD	0	C00D
DINRROAC	0	C030
DINRROA2	0	C031
DINRSECM	0	C00E
DINRSEGM	0	C014
DINRSPIN	0	C013
DINRSPI2	0	C02A
DINRSTCL	0	C004

Table 471. Cross Reference for IEFZB4D2 (continued)

Name	Offset	Hex Tag
DINRSYML	0	C02B
DINRTATT	0	C
DINRTCDP	0	9
DINRTDDN	0	4
DINRTDDX	0	11
DINRTDSN	0	5
DINRTLIM	0	B
DINRTLST	0	D
DINRTMEM	0	6
DINRTNDP	0	8
DINRTORG	0	A
DINRTSTA	0	7
DINRTTYP	0	E
DINRTVOL	0	10
DRICURNT	0	2
DRITCBAD	0	1
DUNDDNAM	0	1
DUNDSNAM	0	2
DUNINSDD	0	79
DUNMEMBR	0	3
DUNNOSEC	0	7A
DUNOVCLS	0	18
DUNOVDSP	0	5
DUNOVPDS	0	801A
DUNOVSHQ	0	59
DUNOVSNH	0	A
DUNOVSUS	0	58
DUNOVUID	0	63
DUNPATH	0	8017
DUNREMOV	0	8
DUNSPIN	0	8013
DUNSPI2	0	802A
DUNUNALC	0	7
SVC99KYS	0	

## IEFZB4FJ information

### IEFZB4FJ programming interface information

IEFZB4FJ is a programming interface.

## IEFZB4FJ heading information

<b>Common name:</b>	JES3 Initialization and Setup Exit Flags
<b>Macro ID:</b>	IEFZB4FJ
<b>DSECT name:</b>	JESFLAGS
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 230 Key: 1 Data Space: No Residency: Any
<b>Size:</b>	2 bytes
<b>Created by:</b>	IEFAB4C3, IEFBB404, IEFDB413
<b>Pointed to by:</b>	SSDYPFLG field of the SSDY
<b>Serialization:</b>	None
<b>Function:</b>	This maps a parameter list which will be pointed to from the SSDY, and will thus be passed to the JES. For PL/AS callers it also maps the function map used by IEFAB4FJ.

## IEFZB4FJ mapping

Table 472. Structure JESFLAGS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JESFLAGS	FLAGS FOR 'DYNAMIC ALLOCATION' CALL TO JES3
0	(0)	CHARACTER	1	DYNCALL1	FIRST BYTE OF FLAGS
0	(0)	X'80'	0	JSVLMNT	"128" ALLOW VOLUME MOUNT
0	(0)	X'40'	0	JSOFFLIN	"64" CONSIDER OFFLINES
0	(0)	X'20'	0	JSWTADEV	"32" WAIT FOR DEVICES
0	(0)	X'10'	0	JSWTDSN	"16" WAIT FOR DATASET NAMES
0	(0)	X'8'	0	JSWTVOL	"8" WAIT FOR VOLUMES
0	(0)	X'4'	0	JSPCATIN	"4" PRIVATE CATALOG FOR INITIATOR
0	(0)	X'2'	0	JSDYNDI	"2" NO JES3 DATASET NAME INTEGRITY PROCESSING
0	(0)	X'1'	0	JSNOTRSB	"1" SWA BLOCKS BEING PASSED ARE DUMMIES AND DO NOT REPRESENT A REAL DD
1	(1)	CHARACTER	1	DYNCALL2	SECOND BYTE OF FLAGS
1	(1)	X'80'	0	JSBATCH	"128" THIS JES3 CALL IS DONE FROM BATCH ALLOCATION

Table 473. Cross Reference for IEFZB4FJ

Name	Offset	Hex Tag
DYNCALL1	0	

Table 473. Cross Reference for IEFZB4FJ (continued)

Name	Offset	Hex Tag
DYNCALL2	1	
JESFLAGS	0	
JSBATCH	1	80
JSDYNDI	0	2
JSNOTRSB	0	1
JSOFFLIN	0	40
JSPCATIN	0	4
JSVOLMNT	0	80
JSWTADEV	0	20
JSWTDSDN	0	10
JSWTVOL	0	8

## IEFZB468 information

### IEFZB468 heading information

<b>Common name:</b>	Mapping macro for STARTIO/EXCP ESTAE ParmS
<b>Macro ID:</b>	IEFZB468
<b>DSECT name:</b>	EXPARM
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 230 Key: 1 Data Space: No Residency: Any
<b>Size:</b>	120 bytes
<b>Created by:</b>	IEFAB4E0 IEFAB494
<b>Pointed to by:</b>	ASWAPRMS
<b>Serialization:</b>	None
<b>Function:</b>	This parameter list is created by IEFAB4E0 and IEFAB494 for use by the ESTAE exit routine, IEFAB4EI.

### IEFZB468 mapping

Table 474. Structure EXPARM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	120	EXPARM	ESTAE PARAMETERS
0	(0)	CHARACTER	96	EXAUTO	AUTOMATIC STORAGE

Table 474. Structure EXPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
96	(60)	CHARACTER	1	EXFLAG	FLAG BYTE
		1... ....		EXSTIO	I/O HAS BEEN STARTED
		.1... ....		EXGETNM	STORAGE WAS GOTTEN
		..1. ....		EXISSUE	ESTAE WAS SUCCESSFUL
		...1 ....		EXDSID	DSID supplied for PURGE (otherwise use PSATOLD)
		.... 1...		EXDVRID	Driver ID supplied for PURGE (otherwise use IOSMISID)
		.... .1..		EXTIMER	STIMERM active and needs to be cancelled
		.... ..1.		EXSWAP	SYSEVENT OKSWAP needs to be issued
		.... ...1		*	Reserved and available as of HBB77A0
97	(61)	CHARACTER	1	*	RESERVED
98	(62)	SIGNED	2	EXSUBPL	SUBPL OF COMMON STORAGE
100	(64)	ADDRESS	4	EXADDR	ADDR OF COMMON STORAGE
104	(68)	SIGNED	4	EXLEN	LEN OF COMMON STORAGE
108	(6C)	SIGNED	4	EXTIMEID	STIMERM ID to CANCEL (valid only if EXTIMER is set)
112	(70)	CHARACTER	1	EXDRIVER	Value of PPLDVRID to purge (valid only if EXDVRID is set)
113	(71)	ADDRESS	3	EXDSIDA	Value of PPLDSIDA to purge I/O by (valid only if EXDSID is set)
116	(74)	ADDRESS	4	*	Reserved and available as of HBB77A0

Table 475. Cross Reference for IEFZB468

Name	Offset	Hex Tag
EXADDR	64	
EXAUTO	0	
EXDRIVER	70	
EXDSID	60	10
EXDSIDA	71	
EXDVRID	60	08
EXFLAG	60	
EXGETNM	60	40
EXISSUE	60	20
EXLEN	68	
EXPARM	0	
EXSTIO	60	80
EXSUBPL	62	
EXSWAP	60	02
EXTIMEID	6C	
EXTIMER	60	04

# IEFZDDWA information

## IEFZDDWA heading information

<b>Common name:</b>	DD Work Area
<b>Macro ID:</b>	IEFZDDWA
<b>DSECT name:</b>	DDWA
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	DDWA Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 230 Key: Key 1 Residency: Above
<b>Size:</b>	X'70' bytes
<b>Created by:</b>	IEFBB401, IEFDB413, IEFAB466
<b>Pointed to by:</b>	SIOTDDWA (contained within IEFASIOT)
<b>Serialization:</b>	None
<b>Function:</b>	<p>This macro maps the DD Work Area.</p> <p>The DD Work Area is used to hold information pertaining to a DD statement (or SIOT) and is created for one instance of Allocation.</p> <p>It is important to note that the information pointed to by this block is not checkpointed.</p> <p>This block is acquired early in the allocation process, so it will be available throughout most of Allocation's processing.</p> <p>This macro also contains the DDWAFailedDevList, which contains the list of devices that have been requested to be brought online by Recovery Allocation but were unsuccessful.</p>

## IEFZDDWA mapping

Table 476. Structure DDWA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	112	DDWA	DD work area
0	(0)	CHARACTER	4	DDWAID	Identifier C'DDWA'
4	(4)	UNSIGNED	1	DDWAVER	Version number
5	(5)	CHARACTER	1	DDWAFLG1	Flags
		1... ....		DDWAMDMD	A demand library MOUNT cmd
		.1.. ....		DDWAMUMG	SIOT is a MU/MG request
		..1. ....		DDWAMUML	SIOT is a MU/ML request



Table 476. Structure DDWA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		DDWASIUA	System has detected a Strong Implicit Unit Affinity to the unit allocated to another DD, due to volser in conflict or other reason. While a specific unit is not required, the same unit as another DD is using IS required, making this a duplicate unit request. MUG groups will be restricted to generic of the device to which there is strong affinity by segment GMENDMND in IEFAB472. This affinity must be honored or the request must be failed (similar to a DEMANDED unit)
		.... 1...		DDWAGAFF	SCTUNAFF is on due to implicit unit affinity for GDGALL and not due to UNIT=AFF= on the JCL
		.... .1..		DDWAODPL	The device pool list passed back from SMS Device Pool Select SSI is ordered. Set by IEFAB42B (was IEFAB423 prior to ATLIB in HBB4430). Used by IEFAB482.
		.... ..1.		DDWAUNAF	Allocation invoked the SMS UNITAFF SSI Exit for this DD. Set by IEFAB457. Checked by IEFAB422.
		.... ...1		DDWACNST	SMS Constructs have been obtained via a call to the SMS TVRU SSI. Set by IEFAB435. Checked by IEFAB490.
6	(6)	CHARACTER	2	DDWAMDEV	Library MOUNT device number
8	(8)	ADDRESS	4	DDWAVRB	Ptr. to VOLUNIT Request Block
12	(C)	CHARACTER	4	DDWARGEN	Generic device type for a request requiring allocated/ offline devices. Set by IEFAB486 and used by IEFAB48A
16	(10)	CHARACTER	4	DDWAMGEN	Generic device type for a MU/ML library request
20	(14)	CHARACTER	5	DDWAMLIB	Library identifier for a MU/MG library request
25	(19)	UNSIGNED	1	DDWAPSCT	the number of public/storage units needed by allocation
26	(1A)	UNSIGNED	1	DDWARCNT	Number of times Recovery Allocation was entered
27	(1B)	UNSIGNED	1	DDWAFLG2	Flags
		1... ....		DDWAMSS	All unit eligible to this request are MSS devices
		.1.. ....		DDWAMXD	Units eligible to this request are a mix of MSS and non-MSS devices
		..1. ....		DDWAFUDA	Mixed device spec. AFF or DEFER
		...1 ....		DDWAPVTM	PVT assumed message reqd
		.... 1...		DDWAGIGN	Ignore process DDWA for this generic
		.... .1..		DDWARTRY	This request requires retry in allocation

Table 476. Structure DDWA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		DDWANODQ	Set in Common Allocation Control (IEFAB421) when a volume ENQ for one of the volume(s) associated with this request failed. - It is later checked in Common Unallocation Control (IEFAB4A0) before creating the Volume Release List (VRL) of volumes to be DEQ'd. - This eliminates the chance of a volume being DEQ'd from under the 'mother' task by a failing 'daughter' task. - When set, DDWAFNQV will contain the Volume Serial (VOLSER) number associated with the failed ENQ.
		.... ...1		DDWAREPCALL	Indicates that the IEF_ALLC_OFFLN exit has already been called for this request. This is passed to the exit in the REPEATCL bit by IEFAB48A
28	(1C)	CHARACTER	4	DDWAUNIT	UNIT value from JCL
32	(20)	ADDRESS	4	DDWAVUAD	VOLUNIT table address
36	(24)	ADDRESS	2	DDWAVUNO	Number of VOLUNIT Table entries.
38	(26)	ADDRESS	2	DDWAGIID	Group intersection id for generic allocation
40	(28)	SIGNED	2	DDWASSIC	information reason code
42	(2A)	CHARACTER	5	DDWATLIB	The library ID of the last Device Pool in the list of eligible device pools which is above the scratch volume threshold. See IEFAB42B (was IEFAB423 prior to ATLIB in HBB4430) for further information. Used by Library Allocation.
47	(2F)	CHARACTER	5	DDWARLIB	Library ID of the device group selected by the algorithm. Set by IEFAB486 and used by IEFAB48A.
52	(34)	CHARACTER	6	DDWAFNQV	Represents a Volume Serial (VOLSER) number that failed an ENQ request by a 'daughter' task when it was already held by the 'mother' task. - DDWANODQ will be on when this field is used.
58	(3A)	UNSIGNED	1	DDWAFLG3	Flags
		1... ....		DDWABADU	Coded unit parameter was not valid, but ignored (i.e. SMS managed dataset) and NOT replaced by a unit retrieved from the catalog or prior DD. Set by IEFAB464. Used by IEFAB453.
		.1.. ....		DDWAEDLA	EDL was altered. Set by IEFAB422 when it detects a change in the EDL upon return from the JES SSI. Acted upon in IEFAB421 whenever a non-zero Return Code is detected.
		..1. ....		DDWA_SKIPPED_UNAVAIL	When building the EDL, IEFAB424 detected that one or more tape devices eligible for a (library / non-library) was marked unavailable for allocation. And did not add the device(s) to the Eligible Device Table.
		...1 ....		DDWA_SIOTDMND	set by IEFAB464 if the UNIT NAME conversion indicates that a specific unit is coded on the Tape Library request.
		.... 1...		DDWA_DPS_BYPASS_ASSIST	Set by IEFAB422 to indicate that Device Pool Select in IEFAB42B should set SSSAIBAA to bypass Allocation Assist.

Table 476. Structure DDWA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		DDWA_PRECALL_NEEDED	Set by IEFAB469 when a parallel recall is to be done for this request.
		.... ..1.		DDWA_PRECALL_COMPLETE	Set by IEFABHS1 when a recall has been completed in parallel for this request.
		.... ...1		DDWA_GENERATION_NAME_RESOLVED	Indicates that the data set name has been resolved from a relative generation number to a G0000V00 name. Currently only set for GDG single requests by IEFAB461.
59	(3B)	UNSIGNED	1	DDWAFLG4	Flags
		1... ....		DDWA_PRECALL_BYPASS	Set by IEFAB469 to indicate to IEFABHS1 to bypass recall. This is set when we have a data set that needs to be recalled via LOCATE with CTGCOIN but want to let other parallel recalls complete first
		.1.. ....		DDWA_CTGNNGDSN	Saved copy of CTGNNGDSN
		..1. ....		DDWA_ISSUEDIEFA170I	Set by IEFAB452 to indicate IEFA170I has been issued for this DD
		...1 ....		DDWA_STORAGESSMHONORVALID	Set by IEFAB42B to indicate we have a valid storage group SMSHonor value
		.... 1111		*	Unused and available
60	(3C)	ADDRESS	4	DDWASIOT	Address of the referenced SIOT if VOL=REF=*.DD or VOL=REF= *.STEP.DD is coded. (Set by IEFAB464. Used by IEFAB42A.)
64	(40)	CHARACTER	8	DDWADTYP	Device Type from EDL. Set by IEFAB422 and used by IEFAB421 if IEFA005I is issued for this DD.
72	(48)	ADDRESS	4	DDWAFAILEDDEVS	Pointer to list of devices that Recovery Allocation has requested to bring online and have failed. Mapped by DDWAFailedDevList
76	(4C)	CHARACTER	8	DDWA_SCTUTYPE	SCTUTYPE from the UNIT NAME
76	(4C)	CHARACTER	4	DDWA_SIoTDEVT	SIOTDEVTYPE for UNIT
80	(50)	ADDRESS	4	DDWA_SIOUCBA4	SIOUCBAAddr for specific unit@L9A
saved here if SIOTSHNR is on@L9A					
84	(54)	ADDRESS	4	DDWA_RECALLECBPTR	Pointer to ECB returned from HSM Recall request in IEFABHSM
88	(58)	CHARACTER	6	DDWA_CTGCVVOL	Saved copy of CTGVLVOL
94	(5E)	UNSIGNED	1	DDWA_READONLY	Read-only DASD info
95	(5F)	UNSIGNED	1	DDWA_READONLY_SER	Read-only DASD serialization info
96	(60)	CHARACTER	8	DDWA_STORAGEGROUPSSMHONOR	Storage Group SMSHonor device/esoteric
104	(68)	CHARACTER	8	*	Reserved

Table 477. Structure DDWAFAILEDDEVLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	96	DDWAFAILEDDEVLIST	DFDL - DDWA Failed Device List
0	(0)	CHARACTER	4	DFDLID	Identifier C'DFDL'
4	(4)	UNSIGNED	1	DFDLVER	Version number

Table 477. Structure DDWAFAILEDDEVLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	CHARACTER	3	*	Reserved
8	(8)	ADDRESS	4	DFDLNEXT@	Pointer to next DDWAFailedDevList for this DDWA
12	(C)	SIGNED	4	DFDLNUM	Number of entries used in this DDWAFailedDevList
16	(10)	CHARACTER	4	DFDLDEVNUM(20)	Array of device numbers already requested to be brought online for this DDWA

Table 478. Constants for IEFZDDWA

Len	Type	Value	Name	Description
1	DECIMAL	3	DDWACVER	Current Version Number
4	CHARACTER	DDWA	DDWACID	Identifier
4	DECIMAL	50	DDWAPCTD	Primary Cell Pool count for Dynamic Allocations
4	DECIMAL	200	DDWASCTD	Secondary Cell Pool count for Dynamic Allocations
4	DECIMAL	50	DDWAPCTB	Primary Cell Pool count for Batch Allocations
4	DECIMAL	200	DDWASCTB	Secondary Cell Pool count for Batch Allocations
18	CHARACTER	IEFZDDWA CELL POOL	DDWACPHD	Header for Cell Pool
4	CHARACTER	DFDL	DFDLCID	Identifier
4	DECIMAL	20	DFDLMAXDEVICES	Size of the DFDLDevnum array
4	DECIMAL	16	ASSERT_GE_1	Ensure that the DDWA is at least as big as the DFDL, since these both reside in the same cell pool. The DDWA size is used to calculate the cell size

Table 479. Cross Reference for IEFZDDWA

Name	Offset	Hex Tag
DDWA	0	
DDWA_CTGCVVOL	58	
DDWA_CTGNGBDSN	3B	40
DDWA_DPS_BYPASS_ASSIST	3A	08
DDWA_GENERATION_NAME_RESOLVED	3A	01
DDWA_ISSUEDIEFA170I	3B	20
DDWA_PRECALL_BYPASS	3B	80
DDWA_PRECALL_COMPLETE	3A	02
DDWA_PRECALL_NEEDED	3A	04
DDWA_READONLY	5E	
DDWA_READONLY_SER	5F	
DDWA_RECALLECBPTR	54	
DDWA_SCTUTYPE	4C	
DDWA_SIOTDEVT	4C	
DDWA_SIOTDMND	3A	10

Table 479. Cross Reference for IEFZDDWA (continued)

Name	Offset	Hex Tag
DDWA_SIOUCBA4	50	
DDWA_SKIPPED_UNAVAIL	3A	20
DDWA_STORAGEGROUPSMHONOR	60	
DDWA_STORAGESMSHONORVALID	3B	10
DDWABADU	3A	80
DDWACNST	5	01
DDWADTYP	40	
DDWAEDLA	3A	40
DDWAFAILEDDEVLIST	0	
DDWAFAILEDDEVS	48	
DDWAFLG1	5	
DDWAFLG2	1B	
DDWAFLG3	3A	
DDWAFLG4	3B	
DDWAFNQV	34	
DDWAFUDA	1B	20
DDWAGAFF	5	08
DDWAGIGN	1B	08
DDWAGIID	26	
DDWAID	0	
DDWAMDEV	6	
DDWAMDMD	5	80
DDWAMGEN	10	
DDWAMLIB	14	
DDWAMSS	1B	80
DDWAMUMG	5	40
DDWAMUML	5	20
DDWAMXD	1B	40
DDWANODQ	1B	02
DDWAODPL	5	04
DDWAPSCT	19	
DDWAPVTM	1B	10
DDWARCNT	1A	
DDWAREPCALL	1B	01
DDWARGEN	C	
DDWARLIB	2F	
DDWARTRY	1B	04
DDWASIOT	3C	
DDWASIUA	5	10

Table 479. Cross Reference for IEFZDDWA (continued)

Name	Offset	Hex Tag
DDWASSIC	28	
DDWATLIB	2A	
DDWAUNAF	5	02
DDWAUNIT	1C	
DDWAVER	4	
DDWAVRB	8	
DDWAVUAD	20	
DDWAVUNO	24	
DFDLDEVNUM	10	
DFDLID	0	
DFDLNEXT@	8	
DFDLNUM	C	
DFDLVER	4	

## IEFZPMAP information

### IEFZPMAP programming interface information

IEFZPMAP is a programming interface.

### IEFZPMAP heading information

<b>Common name:</b>	Mapping Macros for use with the "Logical Parmlib" Service (IEFPRMLB)
<b>Macro ID:</b>	IEFZPMAP
<b>DSECT name:</b>	PRM_List_Buffer - Provides a mapping for the REQUEST=LIST output PRM_Read_Buffer - Provides a mapping for the REQUEST=ALLOCATE with READ function and the REQUEST=READMEMBER function output PRM_Message_Buffer - Provides a mapping for the message buffer for the REQUEST=ALLOCATE and REQUEST=READMEMBER functions
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: NO Virtual Storage: YES Auxiliary Storage: YES Subpool: Determined by users of IEFPRMLB Key: Determined by users of IEFPRMLB Data Space: NO Residency: Any

**Size:** PRM\_LIST\_BUFFER -- X'0048' bytes  
if room for one 56-byte entries is  
provided. Otherwise, X'38' larger  
for each entry for which room is  
provided. Room should be provided for  
at least 11 entries.  
PRM\_READ\_BUFFER -- X'0068' bytes  
if room for one 80-byte record is  
provided. Otherwise, X'50' larger  
for each record for which room is  
provided.  
PRM\_MESSAGE\_BUFFER -- X'0110' bytes  
if room for one message is provided.  
Otherwise, X'100' larger for each  
message for which room is provided.

**Created by:** Callers of IEFPRMLB

**Pointed to by:** Addresses are stored into the caller's  
parameter list

**Serialization:** None.

**Function:** PRM\_List\_Buffer - Provides a mapping for the REQUEST=LIST  
output  
PRM\_Read\_Buffer - Provides a mapping for the REQUEST=  
ALLOCATE with READ function and the REQUEST=  
READMEMBER FUNCTION output  
PRM\_Message\_Buffer - Provides a mapping for the message  
buffer for the REQUEST=ALLOCATE and  
REQUEST= READMEMBER functions

## IEFZPMAP mapping

Table 480. Structure PRM\_LIST\_BUFFER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRM_LIST_BUFFER	Information returned by the LIST function of the IEFPRMLB macro
0	(0)	CHARACTER	16	PRM_LIST_HEADER	Header
0	(0)	SIGNED	1	PRM_LIST_VERSION	Version number. Must be set to PRM_List_Ver1 or PRM_List_Current_Version
1	(1)	CHARACTER	3		Reserved
4	(4)	SIGNED	4	PRM_NUM_PARMLIB_DS	Number of PARMLIB datasets in use by the system
8	(8)	SIGNED	4	PRM_LIST_BUFF_SIZE	Input - Size of buffer including the header
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	1	PRM_LIST_ENTRIES(0)	Array of entries each mapped by PRM_Parmlib_Ds_Info
16	(10)	CHARACTER	56	PRM_PARMLIB_DS_INFO	PARMLIB data set record
16	(10)	CHARACTER	44	PRM_PLIB_DSN	PARMLIB dataset name
60	(3C)	CHARACTER	6	PRM_PLIB_VOLSER	PARMLIB VOLSER
66	(42)	CHARACTER	6		Reserved
Version information used with the LIST buffer (PRMLBUFF)					
.... ...1			PRM_LIST_VER1		"X'01'" Version 1 indicator

Table 480. Structure PRM\_LIST\_BUFFER (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1		PRM_LIST_CURRENT_VERSION	"X'01'" Current Version
66	(42)	X'48'	0	PRM_LIST_BUFFER_LEN	"*-PRM_LIST_BUFFER"

Table 481. Structure PRM\_READ\_BUFFER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRM_READ_BUFFER	Buffer where contents of PARMLIB member are to be placed - used with ALLOCATE READ or READMEMBER functions of IEFPRMLB
0	(0)	CHARACTER	24	PRM_READ_HEADER	Read Buffer Header
0	(0)	SIGNED	4	PRM_READ_BUFF_SIZE	Input - Size of buffer including the header
4	(4)	SIGNED	4	PRM_RECORDS_READ_COUNT	Output - number of PARMLIB member records read into this buffer
8	(8)	SIGNED	4	PRM_BUFF_SIZE_NEEDED	Output - size of buffer needed to contain entire member contents - valid for buffer full condition
12	(C)	SIGNED	4	PRM_TOTAL_RECORDS	Output - Total number of records in the specified member
16	(10)	CHARACTER	8		Reserved
24	(18)	CHARACTER	1	PRM_RECORDS(0)	Output: PARMLIB records area
24	(18)	CHARACTER	80	PRM_RECORD	Output: array of PARMLIB records, each mapped by PRM_Record_Element
24	(18)	CHARACTER	80	PRM_RECORD_ELEMENT	One record
24	(18)	CHARACTER	72	PRM_RECORD_TEXT	First 72 characters of record (If Blank72=YES is specified, character 72 will be EBCDIC blank.)
96	(60)	CHARACTER	8	PRM_EXTRANEIOUS	Sequence number
96	(60)	X'68'	0	PRM_READ_BUFFER_LEN	"*-PRM_READ_BUFFER"

Table 482. Structure PRM\_MESSAGE\_BUFFER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRM_MESSAGE_BUFFER	Buffer where messages will be returned
0	(0)	CHARACTER	16	PRM_MESSAGE_HEADER	Message Buffer Header
0	(0)	SIGNED	4	PRM_MSG_BUFFER_SIZE	Input - Size of buffer including the header
4	(4)	SIGNED	4	PRM_MESSAGE_COUNT	Output - number of messages in the buffer
8	(8)	BITSTRING	1	PRM_MSG_BUFFER_FLAGS	
		1... ..		PRM_MSG_BUFFER_FULL	"X'80'" Output - Message buffer full
9	(9)	CHARACTER	7		Reserved
16	(10)	CHARACTER	1	PRM_MESSAGES(0)	Messages
16	(10)	CHARACTER	256	PRM_MESSAGE_ARRAY	Output - an array of messages descriptors, each mapped by PRM_MESSAGE_ELEMENT
16	(10)	CHARACTER	256	PRM_MESSAGE_ELEMENT	Output - information for one message
16	(10)	BITSTRING	1	PRM_MSG_FLAGS	Output - indicator flags
17	(11)	CHARACTER	1		Reserved
18	(12)	SIGNED	2	PRM_MSG_TEXT_LENGTH	Output - length of this message text
20	(14)	CHARACTER	251	PRM_MSG_TEXT	Output - This message line's text



Table 482. Structure PRM\_MESSAGE\_BUFFER (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
271	(10F)	CHARACTER	1		Reserved
271	(10F)	X'110'	0	PRM_MESSAGE_BUFFER_LEN	"*-PRM_MESSAGE_BUFFER"

Table 483. Cross Reference for IEFZPMAP

Name	Offset	Hex	Tag
PRM_BUFF_SIZE_NEEDED	8		
PRM_EXTRANEIOUS	60		
PRM_LIST_BUFF_SIZE	8		
PRM_LIST_BUFFER	0		
PRM_LIST_BUFFER_LEN	42		48
PRM_LIST_CURRENT_VERSION	42		1
PRM_LIST_ENTRIES	10		
PRM_LIST_HEADER	0		
PRM_LIST_VERSION	0		
PRM_LIST_VER1	42		1
PRM_MESSAGE_ARRAY	10		
PRM_MESSAGE_BUFFER	0		
PRM_MESSAGE_BUFFER_LEN	10F		110
PRM_MESSAGE_COUNT	4		
PRM_MESSAGE_ELEMENT	10		
PRM_MESSAGE_HEADER	0		
PRM_MESSAGES	10		
PRM_MSG_BUFFER_FLAGS	8		
PRM_MSG_BUFFER_FULL	8		80
PRM_MSG_BUFFER_SIZE	0		
PRM_MSG_FLAGS	10		
PRM_MSG_TEXT	14		
PRM_MSG_TEXT_LENGTH	12		
PRM_NUM_PARMLIB_DS	4		
PRM_PARMLIB_DS_INFO	10		
PRM_PLIB_DSN	10		
PRM_PLIB_VOLSER	3C		
PRM_READ_BUFF_SIZE	0		
PRM_READ_BUFFER	0		
PRM_READ_BUFFER_LEN	60		68
PRM_READ_HEADER	0		
PRM_RECORD	18		
PRM_RECORD_ELEMENT	18		
PRM_RECORD_TEXT	18		

Table 483. Cross Reference for IEFZPMAP (continued)

Name	Offset	Hex Tag
PRM_RECORDS	18	
PRM_RECORDS_READ_COUNT	4	
PRM_TOTAL_RECORDS	C	

## IEFZPRC information

### IEFZPRC programming interface information

IEFZPRC is a programming interface.

### IEFZPRC heading information

<b>Common name:</b>	Logical Parmlib Service Return and Reason Codes
<b>Macro ID:</b>	IEFZPRC
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Allocation (SC1B4)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Main Storage: N/A Virtual Storage: N/A Auxiliary Storage: N/A Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Defines the return and reason codes used by the Logical Parmlib Service

### IEFZPRC mapping

Table 484. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
<pre>IEFZPRC_1; IEFZPRC - A - 000000-999999 IEFPRMLB RETURN CODES (decimal)</pre>					
0	(0)	X'0'	0	PRMLB_SUCCESS	"0" X'000' IEFPRMLB completed successfully
0	(0)	X'0'	0	PRMLB_FUNCTION_COMPLETE	"0" X'000' Function completed
0	(0)	X'4'	0	PRMLB_WARNING	"4" X'004' IEFPRMLB completed successfully with a warning
0	(0)	X'8'	0	PRMLB_LOCKS_HELD	"8" X'008' Caller holds locks

Table 484. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'C'	0	PRMLB_REQUEST_FAILED	"12" X'00C' IEFPRMLB request failed
0	(0)	X'10'	0	PRMLB_INTERNAL_ERROR	"16" X'010' IEFPRMLB internal error
0	(0)	X'14'	0	PRMLB_NOT_TASK_MODE	"20" X'014' Caller is not in TASK mode
0	(0)	X'1C'	0	PRMLB_INVALID_PARAMETER_LIST	"28" X'01C' Input parameter list is invalid
0	(0)	X'20'	0	PRMLB_CROSS_MEMORY	"32" X'020' Caller is in Cross Memory Mode
0	(0)	X'24'	0	PRMLB_ESTAE_SETUP_FAILED	"36" X'024' ESTAE Setup failed
0	(0)	X'28'	0	PRMLB_NOTAUTH_TO_SUBPOOL	"40" X'028' An unauthorized caller requested messages in an authorized subpool
IEFPRMLB REASON CODES (decimal) REASON CODE PRMLB_SUCCESS (decimal 0)					
0	(0)	X'0'	0	PRMLB_RSN_OK	"0" X'000' Success reason code
REASON CODE PRMLB_WARNING (decimal 4)					
0	(0)	X'1'	0	PRMLB_DD_ALREADY_ALLOC	"1" X'001' Specified DDname is already allocated
RETURN CODE PRMLB_REQUEST_FAILED (decimal 12)					
0	(0)	X'1'	0	PRMLB_MEMBER_NOT_FOUND	"1" X'001' Specified member not found
0	(0)	X'2'	0	PRMLB_READ_IO_ERROR	"2" X'002' I/O error on member read
0	(0)	X'3'	0	PRMLB_OPEN_ERROR	"3" X'003' Error opening parmlib dataset
0	(0)	X'4'	0	PRMLB_ALLOC_FAILED	"4" X'004' Allocation of one of the logical parmlib datasets failed
0	(0)	X'5'	0	PRMLB_CONCAT_FAILED	"5" X'005' Concatenation of the logical parmlib datasets failed
0	(0)	X'6'	0	PRMLB_READER_LOAD_FAILED	"6" X'006' Load of the parmlib read routine failed
0	(0)	X'7'	0	PRMLB_UNABLE_TO_ACCESS_DS	"7" X'007' Unable to access data set
0	(0)	X'8'	0	PRMLB_PARMLIB_STILL_OPEN	"8" X'008' The logical parmlib is still open. It must be closed before it can be unallocated.
0	(0)	X'9'	0	PRMLB_UNALLOC_FAILED	"9" X'009' Unallocation of one of the logical parmlib datasets failed
0	(0)	X'A'	0	PRMLB_READ_BUFFER_FULL	"10" X'00A' The input READ buffer is full and READ processing could not continue
0	(0)	X'B'	0	PRMLB_PUTLINE_ERROR	"11" X'00B' Putline processing abended. This could be due to an error in the user-provided CPPL.
RETURN CODE PRMLB_Internal_Error (decimal 16)					
0	(0)	X'1'	0	PRMLB_BAD_PARAMETER	"1" X'001' Bad parameter list passed to parmlib read routine
0	(0)	X'2'	0	PRMLB_UNKNOWN_REASON	"2" X'002' Reason for failure is unknown
RETURN CODE PRMLB_Invalid_Parameter_List (decimal 28)					

Table 484. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'1'	0	PRMLB_PLIST_UNACCESSIBLE	"1" X'001' Unable to access the input parameter list
0	(0)	X'2'	0	PRMLB_LISTBUFF_UNACCESSIBLE	"2" X'002' Unable to access the input list buffer
0	(0)	X'3'	0	PRMLB_MSGBUFF_UNACCESSIBLE	"3" X'003' Unable to access the input message buffer
0	(0)	X'4'	0	PRMLB_READBUFF_UNACCESSIBLE	"4" X'004' Unable to access the input read buffer
0	(0)	X'5'	0	PRMLB_PLIST_S99TXTPP_NOT0	"5" X'005' S99TXTPP must be zero
0	(0)	X'6'	0	PRMLB_MSGBUFF_FORMAT_ERROR	"6" X'006' Error in message buffer format
0	(0)	X'7'	0	PRMLB_READBUFF_FORMAT_ERROR	"7" X'007' Error in read buffer format
0	(0)	X'8'	0	PRMLB_LISTBUFF_FORMAT_ERROR	"8" X'008' Error in list buffer format
0	(0)	X'9'	0	PRMLB_S99RB_UNACCESSIBLE	"9" X'009' Unable to access the input S99RB
0	(0)	X'A'	0	PRMLB_RDSNINFO_UNACCESSIBLE	"10" X'00A' Unable to access the RDSNINFO area

Table 485. Cross Reference for IEFZPRC

Name	Offset	Hex Tag
PRMLB_ALLOC_FAILED	0	4
PRMLB_BAD_PARAMETER	0	1
PRMLB_CONCAT_FAILED	0	5
PRMLB_CROSS_MEMORY	0	20
PRMLB_DD_ALREADY_ALLOC	0	1
PRMLB_ESTAE_SETUP_FAILED	0	24
PRMLB_FUNCTION_COMPLETE	0	0
PRMLB_INTERNAL_ERROR	0	10
PRMLB_INVALID_PARAMETER_LIST	0	1C
PRMLB_LISTBUFF_FORMAT_ERROR	0	8
PRMLB_LISTBUFF_UNACCESSIBLE	0	2
PRMLB_LOCKS_HELD	0	8
PRMLB_MEMBER_NOT_FOUND	0	1
PRMLB_MSGBUFF_FORMAT_ERROR	0	6
PRMLB_MSGBUFF_UNACCESSIBLE	0	3
PRMLB_NOT_TASK_MODE	0	14
PRMLB_NOTAUTH_TO_SUBPOOL	0	28
PRMLB_OPEN_ERROR	0	3
PRMLB_PARMLIB_STILL_OPEN	0	8

Table 485. Cross Reference for IEFZPRC (continued)

Name	Offset	Hex Tag
PRMLB_PLIST_S99TXTPP_NOT0	0	5
PRMLB_PLIST_UNACCESSIBLE	0	1
PRMLB_PUTLINE_ERROR	0	B
PRMLB_RDSNINFO_UNACCESSIBLE	0	A
PRMLB_READ_BUFFER_FULL	0	A
PRMLB_READ_IO_ERROR	0	2
PRMLB_READBUFF_FORMAT_ERROR	0	7
PRMLB_READBUFF_UNACCESSIBLE	0	4
PRMLB_READER_LOAD_FAILED	0	6
PRMLB_REQUEST_FAILED	0	C
PRMLB_RSN_OK	0	0
PRMLB_SUCCESS	0	0
PRMLB_S99RB_UNACCESSIBLE	0	9
PRMLB_UNABLE_TO_ACCESS_DS	0	7
PRMLB_UNALLOC_FAILED	0	9
PRMLB_UNKNOWN_REASON	0	2
PRMLB_WARNING	0	4

## IEWLCNV information

### IEWLCNV programming interface information

IEWLCNV is a programming interface.

### IEWLCNV heading information

<b>Common name:</b>	PMLoader DE convert services parameter area
<b>Macro ID:</b>	IEWLCNV
<b>DSECT name:</b>	LCNV
<b>Owning component:</b>	Loader (SCLDR)
<b>Eye-catcher ID:</b>	IEWLCNV Offset: 0 Length: 7
<b>Storage attributes:</b>	Subpool: caller-provided Key: caller-provided
<b>Size:</b>	48 bytes
<b>Created by:</b>	Caller
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None

**Function:**

IEWLCNV maps the parameter area used by PMLoader's directory entry convert service. Macro IEWLCONVT passes the IEWLCONV parameter area to module IEWLCONVX.

**IEWLCNV mapping**

Table 486. Structure LCNV

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV	PML DE convert parameters
0	(0)	CHARACTER	16	LCNV_HEADER(0)	Standard header
0	(0)	CHARACTER	8	LCNV_ID	Eyecatcher
8	(8)	SIGNED	4	LCNV_LEN	
12	(C)	BITSTRING	1	LCNV_LEV	Control block level
	.... .1			LCNV_LEV_IV	"X'01'"
13	(D)	CHARACTER	3		Reserved Start of function parms
16	(10)	SIGNED	4	(0)	
16	(10)	ADDRESS	4	LCNV_OUTLEN	Output length
20	(14)	ADDRESS	4	LCNV_PMAR_PTR	PMAR address
24	(18)	ADDRESS	4	LCNV_FLAGS_PTR	FLAGS address
28	(1C)	ADDRESS	4	LCNV_PDS2INDC_PTR	PDS Directory Entry indicator byte address
32	(20)	ADDRESS	4	LCNV_PMARA_PTR	PMARA address
36	(24)	ADDRESS	4	LCNV_PNAME_PTR	Primary name address
40	(28)	SIGNED	4	LCNV_FUNC	FUNCTION CODE
44	(2C)	ADDRESS	4		Reserved
44	(2C)	X'30'	0	LCNV_LEN_IV	"*-LCNV" Parm List Length
44	(2C)	X'20'	0	LCNV_LEN_LIST	"*-LCNV_OUTLEN" parm list length w/o header

Table 487. Structure LCNV\_FLAGS\_DSECT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV_FLAGS_DSECT	
0	(0)	BITSTRING	1	LCNV_FLAGS	Processing flags
	1... ..			LCNV_FLAGS_ALIAS	"X'80'" Alias indicator

Table 488. Structure LCNV\_PNAME\_DSECT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV_PNAME_DSECT	
0	(0)	CHARACTER	8	LCNV_PNAME	Primary name

THE FOLLOWING ARE IEWLCONVT FUNCTION CODES. THEY ARE ALSO DEFINED IN IEWLDR FOR PLS.

.... .1.1	LDR_FUNC_PMAR_TO_PDSDE	"X'05'" PMAR to PDSDE conversion
.... .11.	LDR_FUNC_PDSDE_TO_PMAR	"X'06'" PDSDE to PMAR conversion

Table 489. Cross Reference for IEWLCONV

Name	Offset	Hex Tag
LCNV	0	

Table 489. Cross Reference for IEWL CNV (continued)

Name	Offset	Hex Tag
LCNV_FLAGS	0	
LCNV_FLAGS_ALIAS	0	80
LCNV_FLAGS_DSECT	0	
LCNV_FLAGS_PTR	18	
LCNV_FUNC	28	
LCNV_HEADER	0	
LCNV_ID	0	
LCNV_LEN	8	
LCNV_LEN_IV	2C	30
LCNV_LEN_LIST	2C	20
LCNV_LEV	C	
LCNV_LEV_IV	C	1
LCNV_OUTLEN	10	
LCNV_PDS2INDC_PTR	1C	
LCNV_PMAR_PTR	14	
LCNV_PMAR_PTR	20	
LCNV_PNAME	0	
LCNV_PNAME_DSECT	0	
LCNV_PNAME_PTR	24	
LDR_FUNC_PDSDE_TO_PMAR	0	6
LDR_FUNC_PMAR_TO_PDSDE	0	5

## IEWPMAR information

### IEWPMAR programming interface information

The following fields are **NOT** programming interface information:

- PMAR\_XATTR1
- PMARL\_BDRL
- PMARL\_BDRO
- PMARL\_CMS
- PMARL\_DTEMPL
- PMARL\_IEWBLITO
- PMARL\_LMDL
- PMARL\_LMDO
- PMARL\_MDAT
- PMARL\_MPGS
- PMARL\_NDEFER
- PMARL\_NGAS
- PMARL\_NSEG
- PMARL\_NVSPGS

- PMARL\_PM3
- PMARL\_PM4
- PMARL\_RATL
- PMARL\_RATO
- PMARL\_RDTL
- PMARL\_RDTO
- PMARL\_TXTL
- PMARL\_TXTO
- PMARL\_1DTXTO
- PMARL\_1STOR
- PMARL\_2STOR
- PMARL\_2TXTO

## IEWPMAR heading information

<b>Common name:</b>	Program Management Attribute Record
<b>Macro ID:</b>	IEWPMAR
<b>DSECT name:</b>	PMAR_RS
<b>Owning component:</b>	Loader (SCLDR)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: variable Key: variable
<b>Size:</b>	variable
<b>Created by:</b>	user
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	IEWPMAR maps a program's user data in an SMDE and declares constants and mappings for use by routines which manipulate program user data. The PMAR mapping is for program attributes which are common to all types of program. The PMARL and PMARR mappings are for attributes which are unique to specific types of program. For program objects (PMAR_LFMT is on), the program's user data is mapped by PMAR followed by PMARL. For load modules (PMAR_LFMT is off), the program's user data is mapped by PMAR followed by PMARR. The PMARA mapping does not map any data in the SMDE. It is used internally by Program Management routines when manipulating program directory entries.

## IEWPMAR mapping

Table 490. Structure PMAR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PMAR	Basic section of program user data
0	(0)	CHARACTER	30	PMAR_ENTRY(0)	Alternative name for the PMAR section
0	(0)	SIGNED	2	PMAR_SLEN	Section length.



Table 490. Structure PMAR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2	(2)	BITSTRING	1	PMAR_LVL	PMAR format level
		.... ...1		PMAR_PM1_VAL	"X'01'" level constant for P01
		.... ..1.		PMAR_PM2_VAL	"X'02'" level constant for P02
		.... ...11		PMAR_PM3_VAL	"X'03'" level constant for P03
		.... ..1..		PMAR_PM4_VAL	"X'04'" level constant for P04
		.... ..1.1		PMAR_PM5_VAL	"X'05'" level constant for P05
		.... ..1.1		PMAR_LVL_VAL	"X'05'" level constant
3	(3)	ADDRESS	1	PMAR_PLVL	Bind processor creating object
		.... ...1		PMAR_PLVL_E_VAL	"X'01'" E-level constant
		.... ..1.		PMAR_PLVL_F_VAL	"X'02'" F-level constant
		.... ...11		PMAR_PLVL_AOS_VAL	"X'03'" AOS-level constant
		.... ..1..		PMAR_PLVL_XA_VAL	"X'04'" XA-level constant
		.... ..1.1		PMAR_PLVL_B1_VAL	"X'05'" Binder version 1
		.... ..11.		PMAR_PLVL_B2_VAL	"X'06'" Binder version 2
		.... ..111		PMAR_PLVL_B3_VAL	"X'07'" Binder version 3
		.... 1...		PMAR_PLVL_B4_VAL	"X'08'" Binder version 4
		.... 1..1		PMAR_PLVL_B5_VAL	"X'09'" Binder version 5 1 - E-level linkage editor 2 - F-level linkage editor 3 - AOS (VS1/VS2) linkage editor 4 - XA linkage editor 5 - binder version 1 6 - binder version 2 7 - binder version 3 8 - binder version 4 9 - binder version 5
4	(4)	CHARACTER	4	PMAR_ATR(0)	Attribute bytes.
4	(4)	BITSTRING	1	PMAR_ATR1	First attribute byte. These flags must be at the same offsets as the corresponding flags in PDS2ATR1 declared by macro IHAPDS.
		1... ....		PMAR_RENT	"X'80'" Reenterable
		..1. ....		PMAR_REUS	"X'40'" Reusable
		...1. ....		PMAR_OVLY	"X'20'" Overlay structure
		.... 1...		PMAR_TEST	"X'10'" Module to be tested - TESTRAN
		.... ..1..		PMAR_LOAD	"X'08'" Only loadable
		.... ..1.		PMAR_SCTR	"X'04'" Scatter format
		.... ...1		PMAR_EXEC	"X'02'" Executable
		.... ...1		PMAR_1BLK	"X'01'" Load module contains only one block of text data and has no rld data.
5	(5)	BITSTRING	1	PMAR_ATR2	Second attribute byte. These flags must be at the same offsets as the corresponding flags in PDS2ATR2 declared by macro IHAPDS.
		1... ....		PMAR_FLVL	"X'80'" If on, the program cannot be processed by the e level linkage editor. If off, the program can be processed by any level of the linkage editor or the Binder.
		..1. ....		PMAR_ORG0	"X'40'" Linkage editor assigned origin of first block of text is zero. EQU X'20' RESERVED
		...1. ....		PMAR_NRLD	"X'10'" Program contains no RLD items
		.... 1...		PMAR_NREP	"X'08'" Module cannot be reprocessed by the linkage editor

Table 490. Structure PMAR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		PMAR_TSTN	"X'04'" Module contains TESTRAN symbol cards EQU X'02' RESERVED
		.... ...1		PMAR_REFR	"X'01'" Refreshable program
6	(6)	BITSTRING	1	PMAR_ATR3(0)	Third attribute byte.
6	(6)	BITSTRING	1	PMAR_FTB1	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB1 declared by macro IHAPDS. EQU X'80' RESERVED
		.1.. ....		PMAR_BIG	"X'40'" This program requires 16M bytes or more of virtual storage
		..1. ....		PMAR_PAGA	"X'20'" Page alignment is required
		...1 ....		PMAR_XSSI	"X'10'" SSI information present
		.... 1...		PMAR_XAPF	"X'08'" APF information present
		.... .1..		PMAR_LFMT	"X'04'" PMARL follows PMAR.
		.... ..1.		PMAR_SIGNED	"X'02'" Program is signed. Verified on LOAD if directed by security product EQU X'01' Do not use. Used in PDS DE
7	(7)	BITSTRING	1	PMAR_ATR4(0)	Fourth attribute byte
7	(7)	BITSTRING	1	PMAR_FTB2	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB2 declared by macro IHAPDS.
		1... ....		PMAR_ALTP	"X'80'" Alternate primary flag. If on for a primary name, indicates primary name was generated by the Binder. If on for an alias name, indicates the long alias name was specified as the primary name on the bind.
		..1. ....		PMAR_RMODE64	"X'20'" RMODE 64
		...1 ....		PMAR_RMOD	"X'10'" RMODE is 31 or 64
		.... 11..		PMAR_AAMD	"X'0C'" Alias entry point addressing mode. If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
		1111 ..11		PMAR_AAMD_MASKOFF	"X'F3'" Mask for AMODE flags in xxxFTB2 flag bytes.
		.... ..11		PMAR_MAMD	"X'03'" Main entry point addressing mode. If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
8	(8)	BITSTRING	1	PMAR_ATR5	Fifth attribute byte
PMAR_RMOD64 was removed and renamed (so at least any unexpected user would no longer assemble)					
		.... ...1		PMAR_LONGPARM	"X'01'" Parm >100 chars allowed
9	(9)	BITSTRING	1	PMAR_AC	APF authorization code
10	(A)	BITSTRING	4	PMAR_STOR	Virtual storage required
14	(E)	BITSTRING	4	PMAR_EPM	Main entry point offset
18	(12)	BITSTRING	4	PMAR_EPA	This entry point offset
22	(16)	BITSTRING	4	PMAR_SSI(0)	SSI information
22	(16)	BITSTRING	1	PMAR_CHLV	Change level of member
23	(17)	BITSTRING	1	PMAR_SSFB	SSI flag byte
24	(18)	CHARACTER	2	PMAR_MSER	Member serial number
26	(1A)	BITSTRING	2	PMAR_XATTR1	Extended Attributes

Table 490. Structure PMAR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		PMAR_SYSTEM_LE	"X'80'"
		.1.. ....		PMAR_LIGHTWEIGHT_LE	"X'40'"
28	(1C)	BITSTRING	2		Reserved
30	(1E)	CHARACTER	1	PMAR_END(0)	END OF BASIC SECTION

Table 491. Structure PMARL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PMARL	LSLoader section for program objects
0	(0)	SIGNED	2	PMARL_SLEN	Section length
2	(2)	CHARACTER	48	PMARL_DATA(0)	Section Data
2	(2)	CHARACTER	4	PMARL_ATR(0)	Attribute bytes
2	(2)	BITSTRING	1	PMARL_ATR1	6th attribute byte
		1... ....		PMARL_NMIG	"X'80'" This program object cannot be converted directly to PDS load module format.
		.1.. ....		PMARL_PRIM	"X'40'" FETCHOPT PRIME option
		..1. ....		PMARL_PACK	"X'20'" FETCHOPT PACK option
		...1 ....		PMARL_XPL	"X'10'" Module requires XPLINK
		...1 ....		PMARL_HPL	"X'10'" Module requires XPLINK
3	(3)	BITSTRING	1	PMARL_ATR2	7th attribute byte
		1... ....		PMARL_CMPR	"X'80'" Compressed format module
		.1.. ....		PMARL_1RMOD	"X'40'" 1st segment is RMODE 31, set for PM2-level P0 only
		..1. ....		PMARL_2RMOD	"X'20'" 2nd segment is RMODE 31, set for PM2-level P0 if there are at least two segments.
		.... 1..		PMARL_1ALIN	"X'08'" 1st segment is page-aligned, set for PM2-level P0 only
		.... .1..		PMARL_2ALIN	"X'04'" 2nd segment is page-aligned, set for PM2-level P0 if there are at least 2 segments.
		.... ..1.		PMARL_FILL	"X'02'" FILL option specified set for PM2-level P0 only
4	(4)	CHARACTER	1	PMARL_FILLVAL	FILL character value set for PM2-level P0 only
5	(5)	BITSTRING	1	PMARL_PO_SUBLVL	Program object sublevel
5	(5)	X'1'	0	PMARL_PO_SUBLVL_Z0SV1R3	"1" Value for z/OS V1 R3 / P04
5	(5)	X'2'	0	PMARL_PO_SUBLVL_Z0SV1R5	"2" Value for z/OS V1 R5 / P04
5	(5)	X'3'	0	PMARL_PO_SUBLVL_Z0SV1R7	"3" Value for z/OS V1 R7 / P04
5	(5)	X'1'	0	PMARL_PO_SUBLVL_Z0SV1R8	"1" Value for z/OS V1 R8 / P05
5	(5)	X'2'	0	PMARL_PO_SUBLVL_Z0SV1R10	"2" Value for z/OS V1 R10 / P05
5	(5)	X'3'	0	PMARL_PO_SUBLVL_Z0SV1R13	"3" Value for z/OS V1 R13 / P05
5	(5)	X'4'	0	PMARL_PO_SUBLVL_Z0SV2R1	"4" Value for z/OS V2 R1 / P05
5	(5)	X'5'	0	PMARL_PO_SUBLVL_Z0SV2R5_WC	"5" Value for workload classification for P05
6	(6)	BITSTRING	4	PMARL_MPGS	Total length of program on DASD in pages (excluding gas) in its current (compressed or uncompressed) form
10	(A)	CHARACTER	40	PMARL_MDAT(0)	DASD program descriptors
10	(A)	BITSTRING	4	PMARL_TXTL	Length of initial load text on DASD including gas.

Table 491. Structure PMARL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E)	ADDRESS	4	PMARL_TXT0	Offset to text
18	(12)	BITSTRING	4	PMARL_BDRL	Length of Binder index
22	(16)	ADDRESS	4	PMARL_BDRO	Offset to Binder index
26	(1A)	BITSTRING	4	PMARL_RDTL	Length of PRDT
30	(1E)	ADDRESS	4	PMARL_RDT0	Offset to PRDT
34	(22)	BITSTRING	4	PMARL_RATL	Length of PRAT
38	(26)	ADDRESS	4	PMARL_RATO	Offset to PRAT
42	(2A)	BITSTRING	4	PMARL_NVSPGS(0)	Number of virtual storage pages to contain program object, for PM2-level P0
42	(2A)	BITSTRING	4	PMARL_LMDL	Length of LSLoader data, for PM1-level P0
46	(2E)	ADDRESS	4	PMARL_LMD0	Offset to LSLoader data
50	(32)	CHARACTER	24	PMARL_PM2(0)	New fields for PM2-Level object
50	(32)	BITSTRING	2	PMARL_NSEG	Number of loadable segments
52	(34)	BITSTRING	2	PMARL_NGAS	Count of entries in Gas Table
54	(36)	BITSTRING	4	PMARL_1STOR	Virtual storage required for first loadable segment, valid for all PM2-level program objects
58	(3A)	BITSTRING	4	PMARL_2STOR	Virtual storage required for second loadable segment, valid when PMARL_NSEG > 1.
62	(3E)	BITSTRING	4	PMARL_2TXT0	Offset to second txt segment including gas, valid when PMARL_NSEG > 1.
66	(42)	CHARACTER	16	PMARL_TRACE(0)	Audit trace data
66	(42)	BITSTRING	4	PMARL_DATE	Date saved This is in packed-decimal format, yyyydddF where yyyy is the year, ddd is the Julian date, and the last 4 bits are x'F'
70	(46)	BITSTRING	4	PMARL_TIME	Time saved This is in packed-decimal format, 0hhmmssF where hh is hours 00-23, mm is minutes 00-59, ss is seconds 00-59, and the last 4 bits are x'F'
74	(4A)	CHARACTER	8	PMARL_USER	User or job identification
82	(52)	CHARACTER	16	PMARL_PM3(0)	New fields for PM3-Level object
82	(52)	BITSTRING	1	PMARL_PM3FL1	Flag byte
	1... ....			PMARL_HIDE	"X'80'" Name is an alias that can be hidden
	.1.. ....			PMARL_DLLENA	"X'40'" P0 is DLL-enabled
	..1. ....			PMARL_MUSTDELET	"X'20'" If on and directed LOAD invoked for this module, Module_Delete function must be issued before freeing or reusing module storage
	...1 ....			PMARL_IEWBLITP	"X'10'" If on, PMARL_IEWBLITO is valid.
	.... 1...			PMARL_MANGLED	"X'08'" If on, name is mangled.
83	(53)	BITSTRING	1	PMARL_CMS	CMS flags
	1... ....			PMARL_CMS_SYSTEM	"X'80'" SYSTEM module bit
	.1.. ....			PMARL_CMS_NOCLEAN	"X'40'" Do not cleanup at end of service
	..1. ....			PMARL_CMS_STRINIT	"X'20'" STRINIT bit
	...1 ....			PMARL_CMS_MODDOS	"X'10'" Gen'd with DOS

Table 491. Structure PMARL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		PMARL_CMS_MODALL	"X'08'" Gen'd with ALL
		.... .1..		PMARL_CMS_INVALIDXA	"X'04'" XA-mode invalid
		.... ..1.		PMARL_CMS_INVALIDXC	"X'02'" XC-mode invalid
84	(54)	BITSTRING	2	PMARL_NDEFER	Number of deferred classes
86	(56)	BITSTRING	4	PMARL_DTEMPL	Total length of deferred text classes on DASD (excludes gas).
90	(5A)	BITSTRING	4	PMARL_1DXTX0	Offset of 1st deferred class on DASD (includes gas).
94	(5E)	BITSTRING	4	PMARL_IIEWBLIT0	Byte offset of IEWBLIT structure from module load point
98	(62)	CHARACTER	8	PMARL_PM4(0)	New fields for PM4-Level
98	(62)	BITSTRING	1	PMARL_ATR3	8th attribute byte
		1... ....		PMARL_1RMODE64	"X'80'" 1st segment is RMODE 64
		.1.. ....		PMARL_2RMODE64	"X'40'" 2nd segment is RMODE 64
99	(63)	BITSTRING	1	PMARL_WC	Workload classification
100	(64)	CHARACTER	6		Reserved
106	(6A)	CHARACTER	1	PMARL_PM5(0)	New fields for PM5-Level
106	(6A)	CHARACTER	1	PMARL_END(0)	END OF LSLOADER SECTION

Table 492. Structure PMARR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PMARR	Load module (PDS) attributes section
0	(0)	SIGNED	2	PMARR_SLEN	Section length
2	(2)	CHARACTER	21	PMARR_DATA(0)	Section data
2	(2)	CHARACTER	8	PMARR_TTRS(0)	TTR fields
2	(2)	CHARACTER	3	PMARR_TTRT	TTR of first block of text
5	(5)	CHARACTER	1	PMARR_ZERO	Zero
6	(6)	CHARACTER	3	PMARR_TTRN	TTR of note list or scatter translation table. Used for modules in scatter load format or overlay structure only. When not scatter load format or overlay structure, may not be zeros.
9	(9)	ADDRESS	1	PMARR_NL	Number of entries in note list for modules in overlay structure. When not overlay structure, may not be zeros.
10	(A)	BITSTRING	2	PMARR_FTBL	Length of first block of text.
12	(C)	BITSTRING	3	PMARR_ORG(0)	Load module origin if !0
12	(C)	CHARACTER	2		Reserved
14	(E)	BITSTRING	1	PMARR_RLDS	Number of RLD/CTL records which follow the first text record
15	(F)	CHARACTER	8	PMARR_SCAT(0)	Scatter load information
15	(F)	BITSTRING	2	PMARR_SLSZ	Scatter list length
17	(11)	BITSTRING	2	PMARR_TTSZ	Translation table length
19	(13)	CHARACTER	2	PMARR_ESDT	ESDID of first text block
21	(15)	CHARACTER	2	PMARR_ESDC	ESDID of EP control section
23	(17)	CHARACTER	1	PMARR_END(0)	END OF LOAD MODULE ATTRIBUTES

Table 493. Structure PMARA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PMARA	PMAR alias entry section
0	(0)	SIGNED	2	PMARA_LEN	Section length
2	(2)	BITSTRING	1	PMARA_DATA(0)	Section data
2	(2)	BITSTRING	4	PMARA_EPA	Entry point offset
6	(6)	CHARACTER	1	PMARA_ATR(0)	Attribute bytes
6	(6)	BITSTRING	1	PMARA_ATR1(0)	First attribute byte
6	(6)	BITSTRING	1	PMARA_FTB2	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB2 declared by macro IHAPDS.
	1... ....			PMARA_ALTP	"X'80'" Alternate Primary flag. If on, this long alias name was specified as the primary on the bind and a Binder generated 8 byte primary name exists.
	.1.. ....			PMARA_HIDE	"X'40'" Alias name can be hidden
	..1. ....			PMARA_NEXEC	"X'20'" Entry point is non-executable
	...1 ....			PMARA_MANGLED	"X'10'" Alias is a mangled name
	.... 11..			PMARA_AMD	"X'0C'" Alias entry addressing mode If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
7	(7)	CHARACTER	1	PMARA_END(0)	END OF ALIAS ENTRY SECTION
Constants used by programs which manipulate program user data. Maximum length PMAR Basic section length LSLoader section length					
7	(7)	X'88'	0	PMAR_MAXLEN	"PMAR_END-PMAR+PMARL_END-PMARL"
Largest PMAR length for program objects Basic section length Program object section length					
7	(7)	X'88'	0	PMAR_MAXLEN_PROGOBJ	"PMAR_END-PMAR+PMARL_END-PMARL"
Largest PMAR length for P01 format program object Basic section length P01 format Program object section length					
7	(7)	X'50'	0	PMAR_MAXLEN_P01	"PMAR_END-PMAR+PMARL_PM2-PMARL"
Largest PMAR length for program objects Basic section length Program object section length for P02					
7	(7)	X'70'	0	PMAR_MAXLEN_P02	"PMAR_END-PMAR+PMARL_PM3-PMARL"
Largest PMAR length for program objects Basic section length Program object section length for P03					
7	(7)	X'80'	0	PMAR_MAXLEN_P03	"PMAR_END-PMAR+PMARL_PM4-PMARL"
Largest PMAR length for program objects Basic section length Program object section length for P04					
7	(7)	X'88'	0	PMAR_MAXLEN_P04	"PMAR_END-PMAR+PMARL_PM5-PMARL"

Table 493. Structure PMARA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Largest PMAR length for program objects Basic section length Program object section length for P05					
7	(7)	X'88'	0	PMAR_MAXLEN_P05	"PMAR_END-PMAR+PMARL_END-PMARL"
Largest PMAR length for PDS load modules Load module section length					
7	(7)	X'35'	0	PMAR_MAXLEN_LOADMOD	"PMAR_END-PMAR+PMARR_END-PMARR"
Largest PMARL length for P01 format program objects P01 format Program object section length					
7	(7)	X'32'	0	PMARL_LVL1LEN	"PMARL_PM2-PMARL"
Largest PMARL length for P02 format program objects P02 format Program object section length					
7	(7)	X'52'	0	PMARL_LVL2LEN	"PMARL_PM3-PMARL"
7	(7)	X'62'	0	PMARL_LVL3LEN	"PMARL_PM4-PMARL"
7	(7)	X'6A'	0	PMARL_LVL4LEN	"PMARL_PM5-PMARL"
7	(7)	X'6A'	0	PMARL_LVL5LEN	"PMARL_END-PMARL"

Table 494. Cross Reference for IEWPMAR

Name	Offset	Hex	Tag
PMAR	0		
PMAR_AAMD	7		C
PMAR_AAMD_MASKOFF	7		F3
PMAR_AC	9		
PMAR_ALTP	7		80
PMAR_ATR	4		
PMAR_ATR1	4		
PMAR_ATR2	5		
PMAR_ATR3	6		
PMAR_ATR4	7		
PMAR_ATR5	8		
PMAR_BIG	6		40
PMAR_CHLV	16		
PMAR_END	1E		
PMAR_ENTRY	0		
PMAR_EPA	12		
PMAR_EPM	E		
PMAR_EXEC	4		2
PMAR_FLVL	5		80
PMAR_FTB1	6		
PMAR_FTB2	7		

Table 494. Cross Reference for IEWPMAR (continued)

Name	Offset	Hex Tag
PMAR_LFMT	6	4
PMAR_LIGHTWEIGHT_LE	1A	40
PMAR_LOAD	4	8
PMAR_LONGPARM	8	1
PMAR_LVL	2	
PMAR_LVL_VAL	2	5
PMAR_MAMD	7	3
PMAR_MAXLEN	7	88
PMAR_MAXLEN_LOADMOD	7	35
PMAR_MAXLEN_P01	7	50
PMAR_MAXLEN_P02	7	70
PMAR_MAXLEN_P03	7	80
PMAR_MAXLEN_P04	7	88
PMAR_MAXLEN_P05	7	88
PMAR_MAXLEN_PROGOBJ	7	88
PMAR_MSER	18	
PMAR_NREP	5	8
PMAR_NRLD	5	10
PMAR_ORG0	5	40
PMAR_OVLY	4	20
PMAR_PAGA	6	20
PMAR_PLVL	3	
PMAR_PLVL_AOS_VAL	3	3
PMAR_PLVL_B1_VAL	3	5
PMAR_PLVL_B2_VAL	3	6
PMAR_PLVL_B3_VAL	3	7
PMAR_PLVL_B4_VAL	3	8
PMAR_PLVL_B5_VAL	3	9
PMAR_PLVL_E_VAL	3	1
PMAR_PLVL_F_VAL	3	2
PMAR_PLVL_XA_VAL	3	4
PMAR_PM1_VAL	2	1
PMAR_PM2_VAL	2	2
PMAR_PM3_VAL	2	3
PMAR_PM4_VAL	2	4
PMAR_PM5_VAL	2	5
PMAR_REFR	5	1
PMAR_RENT	4	80
PMAR_REUS	4	40



Table 494. Cross Reference for IEWPMAR (continued)

Name	Offset	Hex Tag
PMAR_RMOD	7	10
PMAR_RMODE64	7	20
PMAR_SCTR	4	4
PMAR_SIGNED	6	2
PMAR_SLEN	0	
PMAR_SSFB	17	
PMAR_SSI	16	
PMAR_STOR	A	
PMAR_SYSTEM_LE	1A	80
PMAR_TEST	4	10
PMAR_TSTN	5	4
PMAR_XAPF	6	8
PMAR_XATTR1	1A	
PMAR_XSSI	6	10
PMAR_1BLK	4	1
PMARA	0	
PMARA_ALTP	6	80
PMARA_AMD	6	C
PMARA_ATR	6	
PMARA_ATR1	6	
PMARA_DATA	2	
PMARA_END	7	
PMARA_EPA	2	
PMARA_FTB2	6	
PMARA_HIDE	6	40
PMARA_LEN	0	
PMARA_MANGLED	6	10
PMARA_NEXEC	6	20
PMARL	0	
PMARL_ATR	2	
PMARL_ATR1	2	
PMARL_ATR2	3	
PMARL_ATR3	62	
PMARL_BDRL	12	
PMARL_BDRO	16	
PMARL_CMPR	3	80
PMARL_CMS	53	
PMARL_CMS_INVALIDXA	53	4
PMARL_CMS_INVALIDXC	53	2

Table 494. Cross Reference for IEWPMAR (continued)

Name	Offset	Hex Tag
PMARL_CMS_MODALL	53	8
PMARL_CMS_MODALDOS	53	10
PMARL_CMS_NOCLEAN	53	40
PMARL_CMS_STRINIT	53	20
PMARL_CMS_SYSTEM	53	80
PMARL_DATA	2	
PMARL_DATE	42	
PMARL_DLLENA	52	40
PMARL_DTEMPL	56	
PMARL_END	6A	
PMARL_FILL	3	2
PMARL_FILLVAL	4	
PMARL_HIDE	52	80
PMARL_HPL	2	10
PMARL_IEWBLITO	5E	
PMARL_IEWBLITP	52	10
PMARL_LMDL	2A	
PMARL_LMDO	2E	
PMARL_LVL1LEN	7	32
PMARL_LVL2LEN	7	52
PMARL_LVL3LEN	7	62
PMARL_LVL4LEN	7	6A
PMARL_LVL5LEN	7	6A
PMARL_MANGLED	52	8
PMARL_MDAT	A	
PMARL_MPGS	6	
PMARL_MUSTDELET	52	20
PMARL_NDEFER	54	
PMARL_NGAS	34	
PMARL_NMIG	2	80
PMARL_NSEG	32	
PMARL_NVSPGS	2A	
PMARL_PACK	2	20
PMARL_PM2	32	
PMARL_PM3	52	
PMARL_PM3FL1	52	
PMARL_PM4	62	
PMARL_PM5	6A	
PMARL_PO_SUBLVL	5	

Table 494. Cross Reference for IEWPMAR (continued)

Name	Offset	Hex Tag
PMARL_PO_SUBLVL_ZOSV1R10	5	2
PMARL_PO_SUBLVL_ZOSV1R13	5	3
PMARL_PO_SUBLVL_ZOSV1R3	5	1
PMARL_PO_SUBLVL_ZOSV1R5	5	2
PMARL_PO_SUBLVL_ZOSV1R7	5	3
PMARL_PO_SUBLVL_ZOSV1R8	5	1
PMARL_PO_SUBLVL_ZOSV2R1	5	4
PMARL_PO_SUBLVL_ZOSV2R5_WC	5	5
PMARL_PRIM	2	40
PMARL_RATL	22	
PMARL_RATIO	26	
PMARL_RDTL	1A	
PMARL_RDTO	1E	
PMARL_SLEN	0	
PMARL_TIME	46	
PMARL_TRACE	42	
PMARL_TXTL	A	
PMARL_TXTO	E	
PMARL_USER	4A	
PMARL_WC	63	
PMARL_XPL	2	10
PMARL_1ALIN	3	8
PMARL_1DTXT0	5A	
PMARL_1RMOD	3	40
PMARL_1RMOD64	62	80
PMARL_1STOR	36	
PMARL_2ALIN	3	4
PMARL_2RMOD	3	20
PMARL_2RMOD64	62	40
PMARL_2STOR	3A	
PMARL_2TXT0	3E	
PMARR	0	
PMARR_DATA	2	
PMARR_END	17	
PMARR_ESDC	15	
PMARR_ESDT	13	
PMARR_FTBL	A	
PMARR_NL	9	
PMARR_ORG	C	

Table 494. Cross Reference for IEWPMAR (continued)

Name	Offset	Hex Tag
PMARR_RLDS	E	
PMARR_SCAT	F	
PMARR_SLEN	0	
PMARR_SLSZ	F	
PMARR_TTRN	6	
PMARR_TTRS	2	
PMARR_TTRT	2	
PMARR_TTSZ	11	
PMARR_ZERO	5	

## IEZEUNLD information

### IEZEUNLD programming interface information

The following fields are **NOT** programming interface information:

- EUNLSPAC
- EUNLSPCP

### IEZEUNLD heading information

<b>Common name:</b>	UNLOAD Parameter List
<b>Macro ID:</b>	IEZEUNLD
<b>DSECT name:</b>	EUNLD
<b>Owning component:</b>	ALLOCATION (SC1B4)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: User's Subpool Key: Caller's Key Residency: Any
<b>Size:</b>	20 Bytes
<b>Created by:</b>	Issuers of UNLOAD ENF Events 3 and 25
<b>Pointed to by:</b>	First word of parameter list pointed to by R1 on entry to ENF Listen Exit
<b>Serialization:</b>	None
<b>Function:</b>	Contains information passed by the signallers of the UNLOAD events to the listeners.

### IEZEUNLD mapping

Table 495. Structure EUNLD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EUNLD	UNLOAD PARAMETER LIST

Table 495. Structure EUNLD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	SIGNED	2	EUNLEN	LENGTH OF PARAMETER LIST
2	(2)	BITSTRING	1	EUNFLGS	UNLOAD EVENT FLAGS (BYTE 1)
		1... ..		EUNPRIV	"X'80'" VOLUME IS PRIVATE IF ON
		.1... ..		EUNPUB	"X'40'" VOLUME IS PUBLIC IF ON
		..1. ....		EUNSTOR	"X'20'" VOLUME IS STORAGE IF ON
		...1 ....		EUNLSPAC	"X'10'" LSPACE BUFFER IS PRESENT IF ON
3	(3)	BITSTRING	1		UNLOAD EVENT FLAGS (BYTE 2)
4	(4)	SIGNED	4	EUNUCBP	ADDRESS OF UCB
8	(8)	SIGNED	4	EUNLSPCP	ADDRESS OF BUFFER RETURNED BY LSPACE
12	(C)	CHARACTER	6	EUNVOLS	VOLSER OF VOLUME TO BE UNLOADED
18	(12)	BITSTRING	2	EUNRSVD	-- RESERVED --
18	(12)	X'14'	0	EUNLLEN	"*-EUNLD" LENGTH OF UNLOAD PARAMETER LIST

Table 496. Cross Reference for IEZEUNLD

Name	Offset	Hex Tag
EUNFLGS	2	
EUNLD	0	
EUNLEN	0	
EUNLLEN	12	14
EUNLSPAC	2	10
EUNLSPCP	8	
EUNPRIV	2	80
EUNPUB	2	40
EUNRSVD	12	
EUNSTOR	2	20
EUNUCBP	4	
EUNVOLS	C	

## IEZVG100 information

### IEZVG100 programming interface information

IEZVG100 is a programming interface.

### IEZVG100 heading information

<b>Common name:</b>	Subsystem Console Service Routine Parameter List
<b>Macro ID:</b>	IEZVG100
<b>DSECT name:</b>	SCSRPLST, SCSRTCD
<b>Owning component:</b>	CONSOLE (SC1CK)

**Eye-catcher ID:** SCSR  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: ANY  
Key: ANY  
Residency: ANY

**Size:** 96 bytes (SCSRPLST) + 16 bytes (SCSRTCD)  
SCSRPLST -- X'0060' bytes  
SCSRTCD -- X'0010' bytes

**Created by:** CALLER OF IEAVG700

**Pointed to by:** N/A

**Serialization:** None

**Function:** Maps the Subsystem Console Service Routine (IEAVG700) Parameter List

## IEZVG100 mapping

Table 497. Structure SCSRPLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCSRPLST	PARAMETER LIST FOR SUBSYSTEM CONSOLE SERVICE ROUTINE
0	(0)	CHARACTER	4	SCSACRO	ACRONYM 'SCSR'
4	(4)	BITSTRING	1	SCSVER	VERSION LEVEL
5	(5)	BITSTRING	4	SCSFUNC	Function Bytes
5	(5)	BITSTRING	1	SCSFUNC1	FIRST FUNCTION BYTE
Bit definitions:					
		1... ....		SCSOBTAN	"X'80'" OBTAIN A CONSOLE FOR USE BY A SYSTEM COMPONENT
		.1.. ....		SCSDEMSL	"X'40'" DEMAND SELECT REQUEST. SELECT THE CONSOLE WHOSE ID IS IN SCSSonId (Note that the console must be a subsystem console)
		..1. ....		SCSRELSE	"X'20'" RELEASE A CONSOLE WHICH WAS DEDICATED TO A SYSTEM COMPONENT
		...1 ....		SCSBRDON	"X'10'" CAUSE ALL MESSAGES ISSUED TO BE BROADCASTED TO ALL SUBSYSTEMS
		.... 1...		SCSBRDOF	"X'08'" CAUSE ALL MESSAGES ISSUED NOT TO BE BROADCASTED TO ALL SUBSYSTEMS
		.... .1..		SCSRTCDF	"X'04'" CHANGE THE ROUTING CODES OF A CONSOLE DEDICATED TO A SYSTEM COMPONENT **** Warning - this service is obsolete in HBB7730 and above
		.... ..1.		SCSDSTAT	"X'02'" DETERMINE STATUS OF SPECIFIED CONSOLE
		.... ...1		SCSPROT0	"X'01'" DETERMINE THE TYPE OF PROTOCOL TO BE USED TO ISSUE COMMANDS AND MONITOR MESSAGES. ALSO DETERMINE THE PRIMARY SUBSYSTEM
6	(6)	BITSTRING	1	SCSFUNC2	SECOND FUNCTION BYTE
Bit definitions:					

Table 497. Structure SCSRPLST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		SCSRLGRP	"X'80'" RELEASE ONE OR MORE CONSOLES BY ASID
		.1.. ....		SCSPMSTR	"X'40'" MAKE THE CONSOLE HAVE MASTER COMMAND AUTHORITY
		..1. ....		SCSNMSTR	"X'20'" MAKE THE CONSOLE TO NO LONGER HAVE MASTER COMMAND AUTHORITY
		...1 ....		SCSAUTH	"X'10'" INDICATE AUTHORITY OF CONSOLE
		.... 1...		SCSRLCSY	"X'08'" RELEASE ONE OR MORE CONSOLES BY SYSTEM NAME. RESERVED FOR IBM USE.
7	(7)	BITSTRING	1	SCSFUNC3	THIRD FUNCTION BYTE -RESERVED
8	(8)	BITSTRING	1	SCSFUNC4	FOURTH FUNCTION BYTE-RESERVED
9	(9)	CHARACTER	4	SCSCOMP	FUNCTION COMPLETION BYTES
9	(9)	BITSTRING	1	SCSCOMP1	FIRST FUNCTION COMPLETION BYTE
Bit definitions:					
		1... ....		SCSOBTNC	"X'80'" OBTAIN A CONSOLE REQUEST COMPLETED
		.1.. ....		SCSDEMSC	"X'40'" DEMAND SELECT REQUEST COMPLETED
		..1. ....		SCSRELSC	"X'20'" RELEASE A CONSOLE REQUEST COMPLETED
		...1 ....		SCSBRDNC	"X'10'" REQUEST TO BROADCAST WTOS COMPLETED
		.... 1...		SCSBRDFC	"X'08'" REQUEST TO TURN OFF BROADCAST OF WTOS COMPLETED
		.... .1..		SCSRTCDC	"X'04'" CHANGE THE ROUTING CODES REQUEST COMPLETED **** Warning - this service is obsolete in HBB7730 and above
		.... ..1.		SCSSTATC	"X'02'" STATUS REQUEST COMPLETE
		.... ...1		SCSPROTC	"X'01'" DETERMINE THE TYPE OF PROTOCOL REQUEST COMPLETED
10	(A)	BITSTRING	1	SCSCOMP2	SECOND FUNCTION COMPLETION BYTE
Bit definitions:					
		1... ....		SCSRGRPC	"X'80'" REQUEST TO RELEASE ONE OR MORE CONSOLES BY ASID COMPLETED
		.1.. ....		SCSPMSTC	"X'40'" MASTER COMMAND AUTHORITY REQUEST COMPLETED
		..1. ....		SCSNMSTC	"X'20'" WITHDRAW MASTER COMMAND AUTHORITY REQUEST COMPLETED
		...1 ....		SCSAUTHC	"X'10'" OBTAIN AUTHORITY OF CONSOLE REQUEST COMPLETED
		.... 1...		SCSRLSYC	"X'08'" REQUEST TO RELEASE ONE OR MORE CONSOLES BY SYSTEM NAME COMPLETED
		.... .1..		SCSRNAMC	"X'04'" A CONSOLE NAME HAS BEEN RETURNED IN SCSONAME (OBTAIN OR DEMAND SELECT)
11	(B)	BITSTRING	1	SCSCOMP3	THIRD FUNCTION COMPLETION BYTE - RESERVED
12	(C)	BITSTRING	1	SCSCOMP4	FOURTH FUNCTION COMPLETION BYTE - RESERVED
13	(D)	CHARACTER	1	SCSRV1	RESERVED
14	(E)	SIGNED	2	SCSCASID	Reserved for IBM Use

Table 497. Structure SCSRPLST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	CHARACTER	8	SCSNAME	NAME OF SYSTEM COMPONENT. FOR USE BY THE DISPLAY CONSOLES COMMAND
24	(18)	CHARACTER	8	SCRSYNM	SYSTEM NAME FOR REQUEST TO RELEASE A GROUP OF CONSOLES
32	(20)	SIGNED	2	SCSCNID	CONSOLE ID ASSIGNED TO OR REQUESTED BY A SYSTEM COMPONENT Note that SCSCnId must be used in HBB7730 and above
34	(22)	BITSTRING	1	SCSATI	SUBSYSTEM CONSOLE ATTENTION INDEX
35	(23)	BITSTRING	1	SCSCNSTF	CONSOLE STATUS FLAGS
Bit definitions:					
	1... ....			SCSNTDEF	"X'80'" CONSOLE NOT DEFINED TO MCS
	.1.. ....			SCSCNDEF	"X'40'" CONSOLE IS DEFINED TO MCS BUT NOT CURRENTLY IN USE BY MCS
	..1. ....			SCSINUSE	"X'20'" CONSOLE IS IN USE BY MCS OR ALLOCATED TO ANOTHER JOB
36	(24)	CHARACTER	2	SCSFLGS	FLAGS BYTES
36	(24)	BITSTRING	1	SCSFLGS1	FLAGS
Bit definitions:					
	1... ....			SCSNTKWN	"X'80'" PROTOCOL TYPE IS NOT KNOWN AT THIS TIME
NOTE: TYPE 1 PROTOCOL MAY BE USED REGARDLESS OF WHETHER JES2 OR JES3 PRIMARY SUBSYSTEM IS ACTIVE.					
	.1.. ....			SCSTYPE1	"X'40'" TYPE 1 PROTOCOL: USE SVC 34 TO ISSUE COMMANDS - LISTEN TO THE SUBSYSTEM INTERFACE CALLS OF 10(SVC 34) FOR COMMANDS AND 9(SVC 35) FOR MESSAGES
	...1 ....			SCSPNTKN	"X'10'" PRIMARY SUBSYSTEM NOT KNOWN AT THIS TIME
	.... 1...			SCSMVSC	"X'08'" The primary subsystem is not JES3
	.... .1..			SCSJES3C	"X'04'" The primary subsystem is JES3
37	(25)	BITSTRING	1	SCSFLGS2	RESERVED
38	(26)	SIGNED	2	SCSASID	ASID FOR REQUEST TO RELEASE A GROUP OF CONSOLES
40	(28)	BITSTRING	1	SCSAUTHF	AUTHORITY FLAGS OBTAINED VIA SCSAUTH
Bit definitions:					
	1... ....			SCSAUTHM	"X'80'" MASTER AUTHORITY. IT IS SUGGESTED THAT SCSAUTHP BE USED INSTEAD.
	.1.. ....			SCSAUTHP	"X'40'" MASTER AUTHORITY
	..1. ....			SCSAUTH1	"X'20'" COMMAND GROUP 1 (SYS) AUTHORITY
	...1 ....			SCSAUTH2	"X'10'" COMMAND GROUP 2 (I/O) AUTHORITY
	.... 1...			SCSAUTH3	"X'08'" COMMAND GROUP 3 (CONS) AUTHORITY
41	(29)	CHARACTER	3	SCRSRV5	RESERVED



Table 497. Structure SCSRPLST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	CHARACTER	4	SCSPJESN	NAME OF THE PRIMARY JOB ENTRY SUBSYSTEM
48	(30)	ADDRESS	4	SCSRTCDP	ADDRESS OF FIELD CONTAINING THE ROUTING CODES TO BE ASSIGNED TO THE CONSOLE **** Warning - this service is obsolete in HBB7730 and above
52	(34)	CHARACTER	4	SCSUNIT4	4-DIGIT UNIT NAME
52	(34)	CHARACTER	1		IGNORED FOR 3-DIGIT
53	(35)	CHARACTER	3	SCSUNIT	EBCDIC UNIT NAME OF REQUESTED CONSOLE (3-DIGIT) **** Warning - this service is obsolete in HBB7730 and above
56	(38)	ADDRESS	4	SCSXM CSP	POINTER TO STORAGE FOR XSUL
60	(3C)	SIGNED	4	SCSCONID	4-byte console id assigned to or requested by a system component. Use instead of SCSCNID
64	(40)	CHARACTER	8	SCSCNAME	Input console name specified by caller
72	(48)	SIGNED	4	SCSRRTN	Return code from IEAVG700
76	(4C)	CHARACTER	8	SCSONAME	Console Name returned as output (Obtain or Demand Select)
84	(54)	SIGNED	4	SCSRARSN	Abend reason code
88	(58)	CHARACTER	8	SCSRSV6	RESERVED
THE ACRONYM AND VERSION LEVEL TO BE PLACED IN THE SUBSYSTEM CONSOLE SERVICE ROUTINE PARAMETER LIST					
88	(58)	X'C3E2D9'	0	SCSR	"C'SCSR'" ACRONYM
88	(58)	X'1'	0	SCSSP211	"1" LEVEL OS/VS2 JBB2110
88	(58)	X'2'	0	SCSSP220	"2" LEVEL OS/VS2 JBB2220
88	(58)	X'3'	0	SCSSP440	"3" LEVEL MVS/SP510
88	(58)	X'4'	0	SCS_HBB7709	"4" Level z/OS 1.6 HBB7709
88	(58)	X'8'	0	SCS_HBB7730	"8" Level z/OS 1.8 HBB7730
88	(58)	X'8'	0	SCSVERSN	"8" CURRENT VERSION LEVEL
88	(58)	X'50'	0	SCSR_LENGTH_PRE730	"80" Length of SCSR before version 8
88	(58)	X'60'	0	SCSR_LENGTH_VER730	"96" Length of Version 8 SCSR
88	(58)	X'60'	0	SCSPLEN	"96" Length of parameter list
88	(58)	X'10'	0	SCSRLEN	"16" Length of routing codes DSECT
88	(58)	X'70'	0	SCSLEN	"112" Length of both DSECTs
SUBSYSTEM CONSOLE SERVICE ROUTINE RETURN CODES RETURNED IN REGISTER 15					
88	(58)	X'0'	0	SCSR0K	"0" THE REQUESTED FUNCTIONS HAVE BEEN PERFORMED
88	(58)	X'4'	0	SCSRNTFD	"4" A CONSOLE COULD NOT BE ASSIGNED TO THE SYSTEM COMPONENT BECAUSE AN AVAILABLE CONSOLE COULD NOT BE FOUND
88	(58)	X'8'	0	SCSRNAVL	"8" THE REQUESTED CONSOLE WAS NOT AVAILABLE TO BE DEDICATED TO A SYSTEM COMPONENT.
88	(58)	X'C'	0	SCSRNCMP	"12" ONE OR MORE REQUESTED FUNCTIONS COULD NOT BE COMPLETED. CHECK SCSCOMP1, SCSCOMP2, AND SCSCOMP3 TO DETERMINE WHAT FUNCTIONS HAVE BEEN COMPLETED BY IEAVG700.

Table 497. Structure SCSRPLST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
88	(58)	X'10'	0	SCSR0BS	"16" ONE OR MORE REQUESTED FUNCTIONS COULD NOT BE COMPLETED. THEY ARE OBSOLETE IN THIS AND LATER RELEASES.
88	(58)	X'60'	0	SCSRPLST_LEN	"*-SCSRPLST"

Table 498. Structure SCSRTCD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SCSRTCD	THE ROUTING CODES
0	(0)	CHARACTER	1	SCSRTD01	FIRST BYTE OF ROUTING CODES

Bit definitions:

	1... ....	SCSRD001	"X'80'"	MASTER CONSOLE ACTION
	.1.. ....	SCSRD002	"X'40'"	MASTER CONSOLE INFORMATION
	..1. ....	SCSRD003	"X'20'"	TAPE POOL
	...1 ....	SCSRD004	"X'10'"	DIRECT ACCESS POOL
	.... 1...	SCSRD005	"X'08'"	TAPE LIBRARY
	.... .1..	SCSRD006	"X'04'"	DISK LIBRARY
	.... ..1.	SCSRD007	"X'02'"	UNIT RECORD POOL
	.... ...1	SCSRD008	"X'01'"	TELEPROCESSING CONTROL
1	(1) BITSTRING	1	SCSRTD02	SECOND BYTE OF ROUTING CODES

Bit definitions:

	1... ....	SCSRD009	"X'80'"	SYSTEM SECURITY
	.1.. ....	SCSRD010	"X'40'"	SYSTEM/ERROR MAINTENANCE
	..1. ....	SCSRD011	"X'20'"	PROGRAMMER INFORMATION
	...1 ....	SCSRD012	"X'10'"	EMULATOR INFORMATION
	.... 1...	SCSRD013	"X'08'"	USER ROUTING CODE
	.... .1..	SCSRD014	"X'04'"	USER ROUTING CODE
	.... ..1.	SCSRD015	"X'02'"	USER ROUTING CODE
	.... ...1	SCSRD016	"X'01'"	USER ROUTING CODE
2	(2) BITSTRING	1	SCSRTD03	THIRD BYTE OF ROUTING CODES

Bit definitions:

	1... ....	SCSRD017	"X'80'"	USER ROUTING CODE
	.1.. ....	SCSRD018	"X'40'"	USER ROUTING CODE
	..1. ....	SCSRD019	"X'20'"	USER ROUTING CODE
	...1 ....	SCSRD020	"X'10'"	USER ROUTING CODE
	.... 1...	SCSRD021	"X'08'"	USER ROUTING CODE
	.... .1..	SCSRD022	"X'04'"	USER ROUTING CODE
	.... ..1.	SCSRD023	"X'02'"	USER ROUTING CODE
	.... ...1	SCSRD024	"X'01'"	USER ROUTING CODE
3	(3) BITSTRING	1	SCSRTD04	FOURTH BYTE OF ROUTING CODES

Bit definitions:

	1... ....	SCSRD025	"X'80'"	USER ROUTING CODE
	.1.. ....	SCSRD026	"X'40'"	USER ROUTING CODE

Table 498. Structure SCSRTCD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		SCSRD027	"X'20'" USER ROUTING CODE
		...1 ....		SCSRD028	"X'10'" USER ROUTING CODE
		.... 1...		SCSRD029	"X'08'" RESERVED
		.... .1..		SCSRD030	"X'04'" RESERVED
		.... ..1.		SCSRD031	"X'02'" RESERVED
		.... ...1		SCSRD032	"X'01'" RESERVED
4	(4)	BITSTRING	1	SCSRTD05	FIFTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD033	"X'80'" RESERVED
		.1.. ....		SCSRD034	"X'40'" RESERVED
		..1. ....		SCSRD035	"X'20'" RESERVED
		...1 ....		SCSRD036	"X'10'" RESERVED
		.... 1...		SCSRD037	"X'08'" RESERVED
		.... .1..		SCSRD038	"X'04'" RESERVED
		.... ..1.		SCSRD039	"X'02'" RESERVED
		.... ...1		SCSRD040	"X'01'" RESERVED
5	(5)	BITSTRING	1	SCSRTD06	SIXTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD041	"X'80'" JOB STATUS MESSAGE
		.1.. ....		SCSRD042	"X'40'" GENERAL INFO. ABOUT JES2 OR JES3
		..1. ....		SCSRD043	"X'20'" RESERVED FOR JES USAGE
		...1 ....		SCSRD044	"X'10'" RESERVED FOR JES USAGE
		.... 1...		SCSRD045	"X'08'" RESERVED FOR JES USAGE
		.... .1..		SCSRD046	"X'04'" RESERVED FOR JES USAGE
		.... ..1.		SCSRD047	"X'02'" RESERVED FOR JES USAGE
		.... ...1		SCSRD048	"X'01'" RESERVED FOR JES USAGE
6	(6)	BITSTRING	1	SCSRTD07	SEVENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD049	"X'80'" RESERVED FOR JES USAGE
		.1.. ....		SCSRD050	"X'40'" RESERVED FOR JES USAGE
		..1. ....		SCSRD051	"X'20'" RESERVED FOR JES USAGE
		...1 ....		SCSRD052	"X'10'" RESERVED FOR JES USAGE
		.... 1...		SCSRD053	"X'08'" RESERVED FOR JES USAGE
		.... .1..		SCSRD054	"X'04'" RESERVED FOR JES USAGE
		.... ..1.		SCSRD055	"X'02'" RESERVED FOR JES USAGE
		.... ...1		SCSRD056	"X'01'" RESERVED FOR JES USAGE
7	(7)	BITSTRING	1	SCSRTD08	EIGHTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD057	"X'80'" RESERVED FOR JES USAGE
		.1.. ....		SCSRD058	"X'40'" RESERVED FOR JES USAGE
		..1. ....		SCSRD059	"X'20'" RESERVED FOR JES USAGE

Table 498. Structure SCSRTCD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		SCSRD060	"X'10'" RESERVED FOR JES USAGE
		.... 1...		SCSRD061	"X'08'" RESERVED FOR JES USAGE
		.... .1..		SCSRD062	"X'04'" RESERVED FOR JES USAGE
		.... ..1.		SCSRD063	"X'02'" RESERVED FOR JES USAGE
		.... ...1		SCSRD064	"X'01'" RESERVED FOR JES USAGE
8	(8)	BITSTRING	1	SCSRTD09	NINTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD065	"X'80'" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD066	"X'40'" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD067	"X'20'" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD068	"X'10'" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD069	"X'08'" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD070	"X'04'" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD071	"X'02'" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD072	"X'01'" PROCESSOR RELATED MESSAGE
9	(9)	BITSTRING	1	SCSRTD10	TENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD073	"X'80'" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD074	"X'40'" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD075	"X'20'" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD076	"X'10'" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD077	"X'08'" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD078	"X'04'" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD079	"X'02'" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD080	"X'01'" PROCESSOR RELATED MESSAGE
10	(A)	BITSTRING	1	SCSRTD11	ELEVENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD081	"X'80'" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD082	"X'40'" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD083	"X'20'" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD084	"X'10'" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD085	"X'08'" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD086	"X'04'" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD087	"X'02'" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD088	"X'01'" PROCESSOR RELATED MESSAGE
11	(B)	BITSTRING	1	SCSRTD12	TWELFTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD089	"X'80'" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD090	"X'40'" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD091	"X'20'" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD092	"X'10'" PROCESSOR RELATED MESSAGE

Table 498. Structure SCSRTCD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1...		SCSRD093	"X'08'" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD094	"X'04'" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD095	"X'02'" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD096	"X'01'" PROCESSOR RELATED MESSAGE
12	(C)	BITSTRING	1	SCSRTD13	THIRTEENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD097	"X'80'" DEVICE RELATED MESSAGE
		.1.. ....		SCSRD098	"X'40'" DEVICE RELATED MESSAGE
		..1. ....		SCSRD099	"X'20'" DEVICE RELATED MESSAGE
		...1 ....		SCSRD100	"X'10'" DEVICE RELATED MESSAGE
		.... 1...		SCSRD101	"X'08'" DEVICE RELATED MESSAGE
		.... .1..		SCSRD102	"X'04'" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD103	"X'02'" DEVICE RELATED MESSAGE
		.... ...1		SCSRD104	"X'01'" DEVICE RELATED MESSAGE
13	(D)	BITSTRING	1	SCSRTD14	FOURTEENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD105	"X'80'" DEVICE RELATED MESSAGE
		.1.. ....		SCSRD106	"X'40'" DEVICE RELATED MESSAGE
		..1. ....		SCSRD107	"X'20'" DEVICE RELATED MESSAGE
		...1 ....		SCSRD108	"X'10'" DEVICE RELATED MESSAGE
		.... 1...		SCSRD109	"X'08'" DEVICE RELATED MESSAGE
		.... .1..		SCSRD110	"X'04'" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD111	"X'02'" DEVICE RELATED MESSAGE
		.... ...1		SCSRD112	"X'01'" DEVICE RELATED MESSAGE
14	(E)	BITSTRING	1	SCSRTD15	FIFTEENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD113	"X'80'" DEVICE RELATED MESSAGE
		.1.. ....		SCSRD114	"X'40'" DEVICE RELATED MESSAGE
		..1. ....		SCSRD115	"X'20'" DEVICE RELATED MESSAGE
		...1 ....		SCSRD116	"X'10'" DEVICE RELATED MESSAGE
		.... 1...		SCSRD117	"X'08'" DEVICE RELATED MESSAGE
		.... .1..		SCSRD118	"X'04'" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD119	"X'02'" DEVICE RELATED MESSAGE
		.... ...1		SCSRD120	"X'01'" DEVICE RELATED MESSAGE
15	(F)	BITSTRING	1	SCSRTD16	SIXTEENTH BYTE OF ROUTING CODES
Bit definitions:					
		1... ....		SCSRD121	"X'80'" DEVICE RELATED MESSAGE
		.1.. ....		SCSRD122	"X'40'" DEVICE RELATED MESSAGE
		..1. ....		SCSRD123	"X'20'" DEVICE RELATED MESSAGE
		...1 ....		SCSRD124	"X'10'" DEVICE RELATED MESSAGE
		.... 1...		SCSRD125	"X'08'" DEVICE RELATED MESSAGE

Table 498. Structure SCSRTCD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		SCSRD126	"X'04'" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD127	"X'02'" DEVICE RELATED MESSAGE
		.... ...1		SCSRD128	"X'01'" DEVICE RELATED MESSAGE
16	(10)	X'10'	0	SCSRTCD_LEN	"*-SCSRTCD"

Table 499. Cross Reference for IEZVG100

Name	Offset	Hex	Tag
SCS_HBB7709	58		4
SCS_HBB7730	58		8
SCSACRO	0		
SCSASID	26		
SCSATI	22		
SCSAUTH	6		10
SCSAUTHC	A		10
SCSAUTHF	28		
SCSAUTHM	28		80
SCSAUTHP	28		40
SCSAUTH1	28		20
SCSAUTH2	28		10
SCSAUTH3	28		8
SCSBRDFC	9		8
SCSBRDNC	9		10
SCSBRDOF	5		8
SCSBRDON	5		10
SCSCASID	E		
SCSCNAME	40		
SCSCNDEF	23		40
SCSCNID	20		
SCSCNSTF	23		
SCSCOMP	9		
SCSCOMP1	9		
SCSCOMP2	A		
SCSCOMP3	B		
SCSCOMP4	C		
SCSCONID	3C		
SCSDEMISC	9		40
SCSDEMSL	5		40
SCSDSTAT	5		2
SCSFLGS	24		

Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSFLGS1	24	
SCSFLGS2	25	
SCSFUNC	5	
SCSFUNC1	5	
SCSFUNC2	6	
SCSFUNC3	7	
SCSFUNC4	8	
SCSINUSE	23	20
SCSJES3C	24	4
SCSLEN	58	70
SCSMVSC	24	8
SCSNAME	10	
SCSNMSTC	A	20
SCSNMSTR	6	20
SCSNTDEF	23	80
SCSNTKWN	24	80
SCSOBTAN	5	80
SCSOBTNC	9	80
SCSONAME	4C	
SCSPJESN	2C	
SCSPLEN	58	60
SCSPMSTC	A	40
SCSPMSTR	6	40
SCSPNTKN	24	10
SCSPROTC	9	1
SCSPROTO	5	1
SCSR	58	C3E2D9
SCSR_LENGTH_PRE730	58	50
SCSR_LENGTH_VER730	58	60
SCSRARSN	54	
SCSRD001	0	80
SCSRD002	0	40
SCSRD003	0	20
SCSRD004	0	10
SCSRD005	0	8
SCSRD006	0	4
SCSRD007	0	2
SCSRD008	0	1
SCSRD009	1	80

Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSRD010	1	40
SCSRD011	1	20
SCSRD012	1	10
SCSRD013	1	8
SCSRD014	1	4
SCSRD015	1	2
SCSRD016	1	1
SCSRD017	2	80
SCSRD018	2	40
SCSRD019	2	20
SCSRD020	2	10
SCSRD021	2	8
SCSRD022	2	4
SCSRD023	2	2
SCSRD024	2	1
SCSRD025	3	80
SCSRD026	3	40
SCSRD027	3	20
SCSRD028	3	10
SCSRD029	3	8
SCSRD030	3	4
SCSRD031	3	2
SCSRD032	3	1
SCSRD033	4	80
SCSRD034	4	40
SCSRD035	4	20
SCSRD036	4	10
SCSRD037	4	8
SCSRD038	4	4
SCSRD039	4	2
SCSRD040	4	1
SCSRD041	5	80
SCSRD042	5	40
SCSRD043	5	20
SCSRD044	5	10
SCSRD045	5	8
SCSRD046	5	4
SCSRD047	5	2
SCSRD048	5	1



Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSRD049	6	80
SCSRD050	6	40
SCSRD051	6	20
SCSRD052	6	10
SCSRD053	6	8
SCSRD054	6	4
SCSRD055	6	2
SCSRD056	6	1
SCSRD057	7	80
SCSRD058	7	40
SCSRD059	7	20
SCSRD060	7	10
SCSRD061	7	8
SCSRD062	7	4
SCSRD063	7	2
SCSRD064	7	1
SCSRD065	8	80
SCSRD066	8	40
SCSRD067	8	20
SCSRD068	8	10
SCSRD069	8	8
SCSRD070	8	4
SCSRD071	8	2
SCSRD072	8	1
SCSRD073	9	80
SCSRD074	9	40
SCSRD075	9	20
SCSRD076	9	10
SCSRD077	9	8
SCSRD078	9	4
SCSRD079	9	2
SCSRD080	9	1
SCSRD081	A	80
SCSRD082	A	40
SCSRD083	A	20
SCSRD084	A	10
SCSRD085	A	8
SCSRD086	A	4
SCSRD087	A	2

Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSRD088	A	1
SCSRD089	B	80
SCSRD090	B	40
SCSRD091	B	20
SCSRD092	B	10
SCSRD093	B	8
SCSRD094	B	4
SCSRD095	B	2
SCSRD096	B	1
SCSRD097	C	80
SCSRD098	C	40
SCSRD099	C	20
SCSRD100	C	10
SCSRD101	C	8
SCSRD102	C	4
SCSRD103	C	2
SCSRD104	C	1
SCSRD105	D	80
SCSRD106	D	40
SCSRD107	D	20
SCSRD108	D	10
SCSRD109	D	8
SCSRD110	D	4
SCSRD111	D	2
SCSRD112	D	1
SCSRD113	E	80
SCSRD114	E	40
SCSRD115	E	20
SCSRD116	E	10
SCSRD117	E	8
SCSRD118	E	4
SCSRD119	E	2
SCSRD120	E	1
SCSRD121	F	80
SCSRD122	F	40
SCSRD123	F	20
SCSRD124	F	10
SCSRD125	F	8
SCSRD126	F	4

Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSRD127	F	2
SCSRD128	F	1
SCSRELSC	9	20
SCSRELSE	5	20
SCSRGRPC	A	80
SCSRLCSY	6	8
SCSRLEN	58	10
SCSRLGRP	6	80
SCSRLSYC	A	8
SCSRNAMC	A	4
SCSRNAVL	58	8
SCSRNCMP	58	C
SCSRNTFD	58	4
SCSROBS	58	10
SCSROK	58	0
SCSRPLST	0	
SCSRPLST_LEN	58	60
SCSRRTN	48	
SCSRSV1	D	
SCSRSV5	29	
SCSRSV6	58	
SCSRSYNM	18	
SCSRTCD	0	
SCSRTCD_LEN	10	10
SCSRTCDC	9	4
SCSRTCDF	5	4
SCSRTCDP	30	
SCSRTD01	0	
SCSRTD02	1	
SCSRTD03	2	
SCSRTD04	3	
SCSRTD05	4	
SCSRTD06	5	
SCSRTD07	6	
SCSRTD08	7	
SCSRTD09	8	
SCSRTD10	9	
SCSRTD11	A	
SCSRTD12	B	

Table 499. Cross Reference for IEZVG100 (continued)

Name	Offset	Hex Tag
SCSRTD13	C	
SCSRTD14	D	
SCSRTD15	E	
SCSRTD16	F	
SCSSP211	58	1
SCSSP220	58	2
SCSSP440	58	3
SCSSTATC	9	2
SCSTYPE1	24	40
SCSUNIT	35	
SCSUNIT4	34	
SCSVR	4	
SCSVRSN	58	8
SCSXM CSP	38	

## IFAEDIDF information

### IFAEDIDF programming interface information

IFAEDIDF is a programming interface.

### IFAEDIDF heading information

<b>Common name:</b>	IFAEDxxx IDF (return codes and output areas)
<b>Macro ID:</b>	IFAEDIDF
<b>DSECT name:</b>	EDOI EDAAHDR EDAAE
<b>Owning component:</b>	SMF (SC100)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: Caller-supplied Key: Caller-supplied Residency: Caller-supplied
<b>Size:</b>	Variable EDOI -- X'0010' bytes EDAAE -- X'0048' bytes EDAAHDR -- X'0020' bytes
<b>Created by:</b>	Caller and passed as parameter on ANSAREA parameter on call to IFAEDLIS Caller and passed as parameter on OUTPUTINFO parameter on call to IFAEDSTA
<b>Pointed to by:</b>	IFAEDLIS parameter list IFAEDSTA parameter list
<b>Serialization:</b>	None required

**Function:**

Provides return code equates for the IFAEDxxx services.  
 Maps the ansarea data returned by the IFAEDLIS service.  
 Maps the outputinfo data returned by the IFAEDSTA service.  
 For IFAEDSTA, the EDOI DSECT maps the outputinfo area.  
 For IFAEDLIS,  
 the returned information consists of a header (EDAHDR)  
 which indicates how many Registered entries  
 (EdaahNumR, first address in EdaahFirstRAddr) and State entries  
 (EdaahNumS, first address in EdaahFirstSAddr) follow.  
 There is also 0 or 1 Status entry (address in EdaahStatusAddr, or  
 0) to indicate the policy entry that would be used to determine  
 the state of the given product.  
 Registered, state, and status entries are all mapped by Edaae.  
 Certain fields apply only to one or the other, and are  
 commented appropriately.

**IFAEDIDF mapping**

Table 500. Structure EDOI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EDOI	
0	(0)	BITSTRING	1	EDOIFLAGS	
Bit definitions:					
		1... ....		EDOIREGISTERED	"X'80'" The product is registered
		.1.. ....		EDOISTATUSNOTDEFINED	"X'40'" The product is not known to be enabled or disabled.
		..1. ....		EDOISTATUSENABLED	"X'20'" The product is enabled.
		...1 ....		EDOINOTALLFEATURESRETURNED	"X'10'" The featureslen area was too small to hold the features provided at registration time. Field EdoiNeededFeaturesLen contains the size provided at registration time.
1	(1)	CHARACTER	3		
4	(4)	SIGNED	4	EDOINEEDEDFEATURESLEN	The featureslen size provided at registration time.
8	(8)	CHARACTER	6	EDOIPRODVERSRELMOD	
8	(8)	CHARACTER	2	EDOIPRODVERS	The version information provided at registration time.
10	(A)	CHARACTER	2	EDOIPRODREL	The release information provided at registration time.
12	(C)	CHARACTER	2	EDOIPRODMOD	The mod level information provided at registration time.
14	(E)	CHARACTER	2		
Constants for Parameters and Return Codes Product Enable/Disable Register Constants					
14	(E) X'0'		0	IFAEDREG_TYPE_STANDARD	"0"
14	(E) X'2'		0	IFAEDREG_TYPE_REQUIRED	"2" The register request should complete even if the policy indicates that the product is disabled. This would be used when registering solely so your status can be queried.
14	(E) X'4'		0	IFAEDREG_TYPE_NOREPORT	"4" The register request should not be reported upon by display command and SMF report. This might be used when registering solely so the status can be queried.

Table 500. Structure EDO1 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E) X'8'		0	IFAEDREG_TYPE_LICENSEDUNDERPROD	"8" The registering feature is not separately licensed. Rather, the license is associated with the product specified by the prodname parameter.
14	(E) X'10'		0	IFAEDREG_TYPE_DISABLEDMESSAGE	"16" If the product is found to be disabled, have the system issue the appropriate message, rather than the caller having to do it.
14	(E) X'20'		0	IFAEDREG_TYPE_NOTFOUNDDISABLED	"32" If no enable/disable policy entry matches this product, treat the product as disabled, rather than treating it as enabled.
Product Enable/Disable Register Return Codes Note: 0C4 abend if bad address provided in parmlist or user data					
14	(E) X'0'		0	IFAEDREG_SUCCESS	"0" Register service completed successfully
14	(E) X'4'		0	IFAEDREG_DISABLED	"4" Register service found that the product is disabled and therefore the register service was not accepted.
14	(E) X'8'		0	IFAEDREG_NOTAVAILABLE	"8" Register service is not available on this system.
14	(E) X'C'		0	IFAEDREG_LIMITEXCEEDED	"12" too many unauthorized registrations for this address space
14	(E) X'10'		0	IFAEDREG_NOTTASKMODE	"16" Register service was not called in task mode.
14	(E) X'14'		0	IFAEDREG_XM	"20" Register service was not called with P=H=S
14	(E) X'18'		0	IFAEDREG_BADFEATURESLEN	"24" Features length exceeds 1024.
14	(E) X'1C'		0	IFAEDREG_NOSTORAGE	"28" The system could not obtain needed storage.
14	(E) X'20'		0	IFAEDREG_BADTYPE	"32" The type parameter did not specify a word with a value formed from adding any combination of Ifaedreg_Type_Standard, Ifaedreg_Type_Required, Ifaedreg_Type_NoReport, Ifaedreg_Type_LicensedUnderProd, Ifaedreg_Type_DisabledMessage, and Ifaedreg_Type_NotFoundDisabled
14	(E) X'24'		0	IFAEDREG_LOCKED	"36" Register service was called holding a system lock
14	(E) X'28'		0	IFAEDREG_FRR	"40" Register service was called having an FRR
Product Enable/Disable Deregister Return Codes Note: 0C4 abend if bad address provided in parmlist or user data					
14	(E) X'0'		0	IFAEDDRG_SUCCESS	"0" Deregister service completed successfully
14	(E) X'8'		0	IFAEDDRG_NOTAVAILABLE	"8" Deregister service is not available on this system.
14	(E) X'C'		0	IFAEDDRG_NOTREGISTERED	"12" The product that was to be deregistered had not been registered
14	(E) X'10'		0	IFAEDDRG_NOTTASKMODE	"16" deregister service was not called in task mode.

Table 500. Structure EDOI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
14	(E) X'14'		0	IFAEDDRG_XM	"20" Deregister service was not called with P=H=S
14	(E) X'18'		0	IFAEDDRG_NOTAUTH	"24" If not supervisor state, system key, or system PKM, the entry to be deregistered must be registered from the same address space and must have been registered by an equally non-authorized caller.
14	(E) X'24'		0	IFAEDDRG_LOCKED	"36" Deregister service was called holding a system lock
14	(E) X'28'		0	IFAEDDRG_FRR	"40" Deregister service was called having an FRR
Product Enable/Disable Status Return Codes Note: 0C4 abend if bad address provided in parmlist or user data					
14	(E) X'0'		0	IFAEDSTA_SUCCESS	"0" Status service completed successfully
14	(E) X'4'		0	IFAEDSTA_NOTDEFINED	"4" The status service found no entry corresponding to the input product.
14	(E) X'8'		0	IFAEDSTA_NOTAVAILABLE	"8" Status service is not available on this system.
14	(E) X'10'		0	IFAEDSTA_NOTTASKMODE	"16" Status service was not called in task mode.
14	(E) X'14'		0	IFAEDSTA_XM	"20" Status service was not called with P=H=S
14	(E) X'24'		0	IFAEDSTA_LOCKED	"36" Status service was called holding a system lock
14	(E) X'28'		0	IFAEDSTA_FRR	"40" Status service was called having an FRR
Product Enable/Disable List Constants					
14	(E) X'1'		0	IFAEDLIS_TYPE_REGISTERED	"1" Return the registration entry/entries corresponding to the input product.
14	(E) X'2'		0	IFAEDLIS_TYPE_STATE	"2" Return the state entry/entries corresponding to the input product.
14	(E) X'4'		0	IFAEDLIS_TYPE_STATUS	"4" Return the status entry corresponding to the input product.
14	(E) X'8'		0	IFAEDLIS_TYPE_NOREPORT	"8" When returning registration entries, include those for which the IFAEDREG call specified Ifaedreg_Type_NoReport. If not requested, those entries are not returned.
Avoid using a constant for 16 with Ifaedlis_Type. It is reserved for Internal usage Product Enable/Disable List Return Codes Note: 0C4 abend if bad address provided in parmlist or user data					
14	(E) X'0'		0	IFAEDLIS_SUCCESS	"0" List service completed successfully
14	(E) X'4'		0	IFAEDLIS_NOTALLDATARETURNED	"4" List service had more data to return that would fit in the provided answer area. All the complete entries that would fit were returned.
14	(E) X'8'		0	IFAEDLIS_NOTAVAILABLE	"8" List service is not available on this system.

Table 500. Structure EDOI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
14	(E)	X'C'	0	IFAEDLIS_ANSAREATOOSMALL	"12" The answer area, indicated by the answer len parameter is not large enough to hold the answer area header (DSECT EdaahDR).
14	(E)	X'10'	0	IFAEDLIS_NOTTASKMODE	"16" List service was not called in task mode.
14	(E)	X'14'	0	IFAEDLIS_XM	"20" List service was not called with P=H=S
14	(E)	X'20'	0	IFAEDLIS_BADTYPE	"32" The type parameter did not specify a word with a value formed from adding any combination of IFAEDLIS_TYPE_REGISTERED, IFAEDLIS_TYPE_STATE, IFAEDLIS_TYPE_STATUS, and IFAEDLIS_TYPE_NOREPORT.
14	(E)	X'24'	0	IFAEDLIS_LOCKED	"36" List service was called holding a system lock
14	(E)	X'28'	0	IFAEDLIS_FRR	"40" List service was called having an FRR
14	(E)	X'10'	0	EDO_I_LEN	"*-EDO_I"

Table 501. Structure EDAAHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EDAAHDR	Header section
0	(0)	SIGNED	4	EDAAHNUMR	Number of Edaae entries which follow indicating registered entries. The first one is pointed to by EdaahFirstRAddr.
4	(4)	SIGNED	4	EDAAHNUMS	Number of Edaae entries which follow indicating state entries. The first one is pointed to by EdaahFirstSAddr.
8	(8)	SIGNED	4	EDAAHTLEN	Total length of answer area needed to contain all the requested information. This includes the area for the records that were returned on this call.
12	(C)	ADDRESS	4	EDAAHFIRSTRADDR	Address of first registered entry Edaae
16	(10)	ADDRESS	4	EDAAHFIRSTSADDR	Address of first state entry Edaae
20	(14)	ADDRESS	4	EDAAHSTATUSADDR	Address of the entry that represents the policy entry that would be used to determine if the input product was enabled. 0 if no such policy entry exists.
24	(18)	CHARACTER	8		Unused
24	(18)	X'20'	0	EDAAHDR_LEN	"*-EDAAHDR"

Table 502. Structure EDAAE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EDAAE	Edaae Record data format
0	(0)	ADDRESS	4	EDAAENEXTADDR	Address of next Edaae. EdaahNumR (for the registered queue) or EdaahNumS (for the state queue) must be used to determine how far along this chain to go. Not relevant for EdaahStatusAddr.
4	(4)	CHARACTER	62	EDAAEINFO	
4	(4)	CHARACTER	16	EDAAEPRODOWNER	Product owner



Table 502. Structure EDAAE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
20	(14)	CHARACTER	16	EDAAEPRODNAME	Product name
36	(24)	CHARACTER	16	EDAAEFEATURENAME	Feature name
52	(34)	CHARACTER	2	EDAAEPRODVERS	Product version
54	(36)	CHARACTER	2	EDAAEPRODREL	Product release
56	(38)	CHARACTER	2	EDAAEPRODMOD	Product mod level
58	(3A)	CHARACTER	8	EDAAEPRODID	Product ID
66	(42)	BITSTRING	1	EDAAEFLAGS	Flags
Bit definitions:					
		1... ....		EDAAESTATUSNOTDEFINED	"X'80'" This will never be on for entries on the state queue. If on, indicates that the state information does not have an entry that matches this product.
		.1.. ....		EDAAESTATUSENABLED	"X'40'" If on, indicates that the product is considered to be enabled
		..1. ....		EDAAENOREPORT	"X'20'" If on, indicates that the product registered with Ifaedreg_Type_Noreport. This will never on for entries on the state queue.
		...1 ....		EDAAELICENSEDUNDERPROD	"X'10'" If on, indicates that the product registered with Ifaedreg_Type_LicensedUnderProd. This will never on for entries on the state queue.
67	(43)	CHARACTER	1		Unused
68	(44)	SIGNED	4	EDAAENUMINSTANCES	Number of concurrent instances of this registration
68	(44)	X'48'	0	EDAAE_LEN	"*-EDAAE"

Table 503. Cross Reference for IFAEDIDF

Name	Offset	Hex Tag
EDAAE	0	
EDAAE_LEN	44	48
EDAAEFEATURENAME	24	
EDAAEFLAGS	42	
EDAAEINFO	4	
EDAAELICENSEDUNDERPROD	42	10
EDAAENEXTADDR	0	
EDAAENOREPORT	42	20
EDAAENUMINSTANCES	44	
EDAAEPRODID	3A	
EDAAEPRODMOD	38	
EDAAEPRODNAME	14	
EDAAEPRODOWNER	4	
EDAAEPRODREL	36	
EDAAEPRODVERS	34	

Table 503. Cross Reference for IFAEDIDF (continued)

Name	Offset	Hex Tag
EDAAESTATUSENABLED	42	40
EDAAESTATUSNOTDEFINED	42	80
EDAAHDR	0	
EDAAHDR_LEN	18	20
EDAAHFIRSTRADDR	C	
EDAAHFIRSTSADDR	10	
EDAAHNUMR	0	
EDAAHNUMS	4	
EDAAHSTATUSADDR	14	
EDAAHTLEN	8	
EDOI	0	
EDOI_LEN	E	10
EDOIFLAGS	0	
EDOINEEDEDFEATURESLEN	4	
EDOINOTALLFEATURESRETURNED	0	10
EDOIPRODMOD	C	
EDOIPRODREL	A	
EDOIPRODVERS	8	
EDOIPRODVERSRELMOD	8	
EDOIREGISTERED	0	80
EDOISTATUSENABLED	0	20
EDOISTATUSNOTDEFINED	0	40
IFAEDDRG_FRR	E	28
IFAEDDRG_LOCKED	E	24
IFAEDDRG_NOTAUTH	E	18
IFAEDDRG_NOTAVAILABLE	E	8
IFAEDDRG_NOTREGISTERED	E	C
IFAEDDRG_NOTTASKMODE	E	10
IFAEDDRG_SUCCESS	E	0
IFAEDDRG_XM	E	14
IFAEDLIS_ANSAREATOOSMALL	E	C
IFAEDLIS_BADTYPE	E	20
IFAEDLIS_FRR	E	28
IFAEDLIS_LOCKED	E	24
IFAEDLIS_NOTALLDATARETURNED	E	4
IFAEDLIS_NOTAVAILABLE	E	8
IFAEDLIS_NOTTASKMODE	E	10
IFAEDLIS_SUCCESS	E	0
IFAEDLIS_TYPE_NOREPORT	E	8

Table 503. Cross Reference for IFAEDIDF (continued)

Name	Offset	Hex Tag
IFAEDLIS_TYPE_REGISTERED	E	1
IFAEDLIS_TYPE_STATE	E	2
IFAEDLIS_TYPE_STATUS	E	4
IFAEDLIS_XM	E	14
IFAEDREG_BADFEATURESLEN	E	18
IFAEDREG_BADTYPE	E	20
IFAEDREG_DISABLED	E	4
IFAEDREG_FRR	E	28
IFAEDREG_LIMITEXCEEDED	E	C
IFAEDREG_LOCKED	E	24
IFAEDREG_NOSTORAGE	E	1C
IFAEDREG_NOTAVAILABLE	E	8
IFAEDREG_NOTTASKMODE	E	10
IFAEDREG_SUCCESS	E	0
IFAEDREG_TYPE_DISABLEDMESSAGE	E	10
IFAEDREG_TYPE_LICENSEDUNDERPROD	E	8
IFAEDREG_TYPE_NOREPORT	E	4
IFAEDREG_TYPE_NOTFOUNDDISABLED	E	20
IFAEDREG_TYPE_REQUIRED	E	2
IFAEDREG_TYPE_STANDARD	E	0
IFAEDREG_XM	E	14
IFAEDSTA_FRR	E	28
IFAEDSTA_LOCKED	E	24
IFAEDSTA_NOTAVAILABLE	E	8
IFAEDSTA_NOTDEFINED	E	4
IFAEDSTA_NOTTASKMODE	E	10
IFAEDSTA_SUCCESS	E	0
IFAEDSTA_XM	E	14

## IFAENF37 information

### IFAENF37 programming interface information

IFAENF37 is a programming interface.

### IFAENF37 heading information

**Common name:** SMF MAPPING MACRO FOR EVENT CODE 37  
**Macro ID:** IFAENF37  
**DSECT name:** ENF37 (For SMF Interval Sync Support)

**Owning component:** System Management Facilities (SC100)

**Eye-catcher ID:** ENF37  
Offset: 0  
Length: 6

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: Above

**Size:** 26 bytes ('1A' in hex)  
FREQUENCY = 1 per ENF (Event Code #37) Signal

**Created by:** SMF

**Pointed to by:** N/A

**Serialization:** None

**Function:** SMF Mapping Macro for ENF (Event Code #37) users

## IFAENF37 mapping

Table 504. Structure ENF37

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF37	SMF ENF Parameter List for Interval SYNC Support
0	(0)	CHARACTER	6	ENF37ID	- Control Block Id - "ENF37 "
6	(6)	CHARACTER	2	ENF37VER	- Parameter List Version
8	(8)	SIGNED	2	ENF37LEN	- Parameter List Length
10	(A)	CHARACTER	1	ENF37RSV	- Reserved
11	(B)	BITSTRING	1	ENF37FLG	- Flags
	1... ....			ENF37_B00STEVENT	"X'80'" - For ENF37QLF value of ENF37Q06: When on, the interval expiration was due to a boost event. When off, the interval expiration was due to a processor configuration change event.
12	(C)	CHARACTER	4	ENF37QLF	- Qualifier Code. See ENF37Q0x values
16	(10)	CHARACTER	8	ENF37TOD	- SYNC Event Value (in TOD format) Used only for INTVAL parm change, SYNCVAL parm change, or SYNC interval expired events.
24	(18)	CHARACTER	2	ENF37CHR	- SYNC Event Value (in character format) Used only for INTVAL or SYNCVAL parm change events.
24	(18)	X'1A'	0	ENF37END	"*" End of ENF37 Mapping
0	(0)	SIGNED	4	(0)	Word Boundary Alignment
0	(0)	BITSTRING	4	ENF37Q00	SMF Active
4	(4)	BITSTRING	4	ENF37Q01	SMF Terminated
8	(8)	BITSTRING	4	ENF37Q02	SMF INTVAL Parm Changed
12	(C)	BITSTRING	4	ENF37Q03	SMF SYNCVAL Parm Changed
16	(10)	BITSTRING	4	ENF37Q04	SMF SYNC Interval Expired
20	(14)	BITSTRING	4	ENF37Q05	SMF Interval SYNC Error
24	(18)	BITSTRING	4	ENF37Q06	SMF Processor Capacity Change or Boost interval. See ENF37_BoostEvent
28	(1C)	CHARACTER	6	ENF37CID	'ENF37 ' EBCDIC

Table 504. Structure ENF37 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
34	(22)	CHARACTER	2	ENF37V1	Version 1 Indicator

Table 505. Cross Reference for IFAENF37

Name	Offset	Hex	Tag
ENF37	0		
ENF37_BOOSTEVENT	B		80
ENF37CHR	18		
ENF37CID	1C	C5D5C6F3	
ENF37END	18		1A
ENF37FLG	B		
ENF37ID	0		
ENF37LEN	8		
ENF37QLF	C		
ENF37Q00	0	80000000	
ENF37Q01	4	40000000	
ENF37Q02	8	20000000	
ENF37Q03	C	10000000	
ENF37Q04	10	80000000	
ENF37Q05	14	40000000	
ENF37Q06	18	20000000	
ENF37RSV	A		
ENF37T0D	10		
ENF37VER	6		
ENF37V1	22		F0F1

## IFAQUAA information

### IFAQUAA programming interface information

IFAQUAA is a programming interface.

### IFAQUAA heading information

<b>Common name:</b>	SMF Query Answer Area
<b>Macro ID:</b>	IFAQUAA
<b>DSECT name:</b>	QUAHDR QUALS QUAPS QUAFS
<b>Owning component:</b>	System Management Facility (SC100)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: Caller-supplied Key: Caller-supplied Residency: Caller-supplied

**Size:** Variable  
 QUADSTYPE -- X'0048' bytes  
 QUAXTTYPE -- X'0010' bytes  
 QUARCTYPE -- X'0018' bytes  
 QUAGBTYPE -- X'0093' bytes  
 QUAINTYPE -- X'0134' bytes  
 QUASBTYPE -- X'000F' bytes  
 QUALSEXTRECTYPE -- X'0100' bytes  
 QUAFSTYPE -- X'0021' bytes  
 QUAPSTYPE -- X'0030' bytes  
 QUAHDRTYPE -- X'0010' bytes  
 QUALSTYPE -- X'00D8' bytes

**Created by:** Caller and passed as parameter on ANSAREA keyword on IFAQUERY invocation

**Pointed to by:** IFAQUERY parameter list

**Serialization:** None required

**Function:** Maps the data returned by the IFAQUERY macro request.

## IFAQUAA mapping

Table 506. Structure QUAHDRTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAHDRTYPE	Header section
0	(0)	SIGNED	4	QUAH#REC	Number of QUALS or QUADS records which follow. Note: this field is zero with zero return code, when the service could not find any records and SMF is recording
4	(4)	SIGNED	4	QUAH#REM	Number of QUALS or QUADS records which were not returned because of insufficient space
8	(8)	SIGNED	4	QUAHTLEN	Total length of answer area needed to contain all the requested information. This includes the area for the records that were returned on this call.
12	(C)	SIGNED	4	QUAHDOFF	Offset from QUAHDR to the first data record.
12	(C)	X'10'	0	QUAHDRTYPE_LEN	"*-QUAHDRTYPE"

Table 507. Structure QUALSTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUALSTYPE	Logstream Record data format
0	(0)	BITSTRING	1	QUALSTYP	X'02' Logstream record, X'82' last Logstream record
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUALSLEN	Length of Logstream record, including the QualSExtRecType extension, if requested
4	(4)	CHARACTER	26	QUALSNAME	Logstream name
30	(1E)	SIGNED	2	QUALSXTOFF	Offset from beginning of QUALSType to extended type extension

Table 507. Structure QUALSTYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
32	(20)	CHARACTER	32	QUALSREC	256 bit bitstring describing record types being recorded to this logstream (record 0 is in first bit of first byte, record 255 is last bit of byte 32.)
64	(40)	SIGNED	4	QUALSBSZ	Logstream buffer block size (number of bytes)
68	(44)	BITSTRING	8	QUALSTOD	Last successful write TOD
76	(4C)	BITSTRING	4	QUALSTAT	Logstream Status
76	(4C)	BITSTRING	1	QUALSTB1	Status byte 1
Bit definitions:					
		1... ....		QUALSDEF	"X'80'" Default logstream, accepting records which are not being recorded in any other logstream.
		.1.. ....		QUALSACT	"X'40'" Active
		..1. ....		QUALSCLN	"X'20'" being cleaned up
		...1 ....		QUALSCNT	"X'10'" Connected
		.... 1...		QUALSDWG	"X'08'" On when the DSPSIZMAX option came from the global option
		.... .1..		QUALSNBG	"X'04'" On when the NOBUFFS option came from the global option. Off when specified by LSNAME
		.... ..1.		QUALSBWNG	"X'02'" On when the BUFUSEWARN option came from the global option Off when specified by LSNAME
77	(4D)	BITSTRING	1	QUALSTB2	Status byte 2
Bit definitions:					
		1... ....		QUALSCRQ	"X'80'" On-Compression requested for records written to this log stream by SMF configuration Off-Compression not requested
		.1.. ....		QUALSCPR	"X'40'" On-Compression is Prepared. This log stream is ready to compress records (hardware is capable of using zEnterprise Data Compression (zEDC)), and all setup for compression succeeded Off- Hardware is not capable of using zEDC or compression setup failed (see IFA730I)
		..1. ....		QUALSCMP	"X'20'" On- Compression is Available. The last use of zEDC was successful and it indicated a zEDC Express was available to satisfy compression requests Off- At last request- zEDC Expresses were not available to satisfy compression requests
		...1 ....		QUALSPFG	"X'10'" The current PERMFIX value for this log stream is the global PERMFIX value. In the SMF configuration, a log stream PERMFIX value was not specified.
		.... 1...		QUALSXTD	"X'08'" This logstream is collecting record types above 255. The actual record type numbers are only returned if the IFAQUERY request specifies ExtendedTypes=YES
		.... .1..		QUALSNBM	"X'04'" On when logstream has NOBUFFS(MSG) specified. Mutually exclusive with QUALSNBH

Table 507. Structure QUALSTYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		QUALSNBH	"X'02'" On when logstream has NOBUFFS(HALT) specified. Mutually exclusive with QUALSNBM
78	(4E)	BITSTRING	1	QUALSTB3	Status byte 3
79	(4F)	BITSTRING	1	QUALSTB4	Status byte 4
80	(50)	SIGNED	4	QUALSBFL	Number of records lost during buffer shortage. If zero then there is currently no buffer shortage.
84	(54)	CHARACTER	8	QUALSDTM	Time that logstream buffer became unavailable. If zero then there is currently no buffer shortage.
92	(5C)	SIGNED	4	QUALSDSZ	The DSPSIZMAX for this logstream (number of bytes)
96	(60)	SIGNED	4	QUALSHWM	The high water mark for the buffer area (number of bytes)
100	(64)	SIGNED	4	QUALSLFT	Amount of storage used currently in the buffer area (number of bytes)
SMF configuration parameter PERMFIX defines the maximum storage SMF can keep registered to zEDC. The following four fields represent amounts of storage registered to zEDC for this log stream.					
104	(68)	SIGNED	4	QUALSPFT	Total storage SMF is currently using for zEDC for this log stream. Value does not account for 1MB needed by each log stream using zEDC. Value may be up to 2MB greater than the defined PERMFIX value depending on usage.
108	(6C)	SIGNED	4	QUALSPFM	Max storage SMF can use for zEDC for this log stream. Configuration defined PERMFIX value.
112	(70)	SIGNED	4	QUALSPFH	High water mark of storage SMF has used for zEDC for this log stream connection
116	(74)	CHARACTER	44	QUALSKEYHANDLE	44 character key handle for RECSIGN
116	(74)	CHARACTER	32	QUALSTOKENNAME	32 character token name
148	(94)	CHARACTER	12		Remaining key handle
160	(A0)	BITSTRING	1	QUALSCRYPTOFLAGS	Option flags
Bit definitions:					
		1... ....		QUALSRECSIGNON	"X'80'" RECSIGN specified
		.1.. ....		QUALSARECSIGNON	"X'40'" ARECSIGN specified
161	(A1)	BITSTRING	1	QUALSSIGTYPE	SIGNATURE type for RECSIGN
Bit definitions:					
		1... ....		QUALSSIGRSA	"X'80'" SIGNATURE(RSA)
		.1.. ....		QUALSSIGECDSA	"X'40'" SIGNATURE(ECDSA)
162	(A2)	BITSTRING	1	QUALSHASHTYPE	HASH method for RECSIGN
Bit definitions:					
		1... ....		QUALHASHSHA1	"X'80'" HASH(SHA1)
		.1.. ....		QUALHASHSHA256	"X'40'" HASH(SHA256)
		..1. ....		QUALHASHSHA384	"X'20'" HASH(SHA384)
		...1 ....		QUALHASHSHA512	"X'10'" HASH(SHA512)



Table 507. Structure QUALSTYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
163	(A3)	CHARACTER	44	QUALSALTKEYHANDLE	44 character key handle for ARECSIGN
163	(A3)	CHARACTER	32	QUALSALTTOKENNAME	32 character token name
195	(C3)	CHARACTER	12		Remaining key handle
207	(CF)	BITSTRING	1	QUALSALTSIGTYPE	SIGNATURE type for ARECSIGN
Bit definitions:					
		..1. ....		QUALSALTSIGLI2	"X'20'" SIGNATURE(LI2)
208	(D0)	BITSTRING	1	QUALSALTHASHTYPE	HASH method for ARECSIGN
Bit definitions:					
		...1 ....		QUALSALTHASHSHA512	"X'10'" HASH(SHA512)
209	(D1)	CHARACTER	3		Reserved for alignment
212	(D4)	SIGNED	4	QUALSBUW	BUFUSEWARN value as a percentage
212	(D4)	X'D8'	0	QUALSTYPE_LEN	"*-QUALSTYPE"

Table 508. Structure QUALSEXTRECTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUALSEXTRECTYPE	Logstream Record data extension for extended record types
0	(0)	CHARACTER	256	QUALSEXTRECTYPEBITS	256 byte representation of 2048 record types, where: bit 0 (byte 1, bit 0) = record type 0, bit 2047 (byte 256, bit 7) = record type 2047
0	(0)	X'100'	0	QUALSEXTRECTYPE_LEN	"*-QUALSEXTRECTYPE"

Table 509. Structure QUAFTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAFSTYPE	Policy Record data format
0	(0)	BITSTRING	1	QUAFSTYP	X'03' MSG Type, X'04' DROP Type Policy record. The high order bit will be on in the last record
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUAFSLEN	Length of Policy record
4	(4)	SIGNED	2	QUAFEXTTYPE	Extended Record type (0-2047) when ExtendedTypes is set to YES. When ExtendedTypes is set or defaulted to NO, set to zero
6	(6)	SIGNED	2		Reserved X'00'
8	(8)	SIGNED	8	QUAFINTVLTIME	Interval time for this policy for flood detection
16	(10)	SIGNED	8	QUAFENDINTVL	Interval time for this policy for end of flood detection
24	(18)	SIGNED	4	QUAFRECTHRESH	Number of records that make up an interval for this policy
28	(1C)	SIGNED	4	QUAFMAXHIGHINTS	Max number of intervals allow below the IntvlTime before action is taken for this policy
32	(20)	BITSTRING	1	QUAFTYPE	Record type this filter is for when ExtendedTypes is set or defaulted to NO
32	(20)	X'21'	0	QUAFSTYPE_LEN	"*-QUAFSTYPE"

Table 510. Structure QUAPSTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAPSTYPE	Drop History data format
0	(0)	BITSTRING	1	QUAPSTYP	X'05' For Drop History record, x'85' for the last record
1	(1)	BITSTRING	1	QUAPRECTYPE	The record type of the flood for when ExtendedTypes is set or defaulted to NO
2	(2)	SIGNED	2	QUAPSLEN	Length of drop history record
4	(4)	SIGNED	2	QUAPEXTTYPE	Extended Record type (0-2047) when ExtendedTypes is set to YES. When ExtendedTypes is set or defaulted to NO, set to zero
6	(6)	SIGNED	2		Reserved X'00'
8	(8)	SIGNED	8	QUAPDROPPEDRECORDS	# of records dropped
16	(10)	CHARACTER	16	QUAPFLOODSTART	StckE from start of the flood
32	(20)	CHARACTER	16	QUAPFLOODEND	StckE from the end of the flood
32	(20)	X'30'	0	QUAPSTYPE_LEN	"*-QUAPSTYPE"

Table 511. Structure QUADSTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUADSTYPE	Dataset data format
0	(0)	BITSTRING	1	QUADSTYP	X'06' For Dataset record. X'86' last Dataset record
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUADSLEN	Length of Dataset record
4	(4)	CHARACTER	44	QUADSNAME	Data set name
48	(30)	CHARACTER	6	QUADSVOL	Volume
54	(36)	BITSTRING	4	QUADSSTAT	Status flags
54	(36)	BITSTRING	1	QUADSSTAT1	First status byte

Bit definitions:

		1... ....	QUADSDUMP	"X'80'"	Dump required
		.1.. ....	QUADSACTIVE	"X'40'"	Active
		..1. ....	QUADSALT	"X'20'"	Alternate
		...1 ....	QUADSCLOSE	"X'10'"	Close pending
		.... 1...	QUADSError	"X'08'"	Error Status
58	(3A)	CHARACTER	2		Reserved for alignment
60	(3C)	SIGNED	4	QUADSSIZE	Size (in blocks)
64	(40)	SIGNED	4	QUADSUSED	Used (in blocks)
68	(44)	SIGNED	4	QUADSCISIZE	Control interval size (block size) of the data set
68	(44)	X'48'	0	QUADSTYPE_LEN	"*-QUADSTYPE"

Table 512. Structure QUAXTTYPE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAXTTYPE	Exit data format
0	(0)	BITSTRING	1	QUAXTTYP	X'07' For Exit record. X'87' for last Exit record returned
1	(1)	BITSTRING	1		Reserved X'00'

Table 512. Structure QUAXTTYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2	(2)	SIGNED	2	QUAXTLEN	Length of Exit record
4	(4)	CHARACTER	4	QUAXTSUBSYS	SYS or Subsystem name
8	(8)	CHARACTER	8	QUAXTNAME	Exit name
8	(8)	X'10'	0	QUAXTTYPE_LEN	"*-QUAXTTYPE"

Table 513. Structure QUARCTYPE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	QUARCTYPE	Record Type data format
0	(0)	BITSTRING	1	QUARCTYP	X'08' For Record Type record. X'88' for last Record Type Record returned
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUARCLEN	Length of Record Type rec
4	(4)	CHARACTER	4	QUARCSUBSYS	Subsystem name
8	(8)	SIGNED	4	QUARCFIRSTTYPE	First record type in range
12	(C)	SIGNED	4	QUARCLASTTYPE	Last record type in range
16	(10)	SIGNED	4	QUARCFIRSTSUBTYPE	First subtype in range being recorded for these record types
20	(14)	SIGNED	4	QUARCLASTSUBTYPE	Last subtype in range being recorded for these record types
20	(14)	X'18'	0	QUARCTYPE_LEN	"*-QUARCTYPE"

Table 514. Structure QUAGBTYPE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	QUAGBTYPE	Global data format
0	(0)	BITSTRING	1	QUAGBTYP	X'09' For Global record. X'89' last Global record Note: Only one Global record will be returned
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUAGBLEN	Length of Global record
4	(4)	CHARACTER	2	QUAGBCURRMEMBER	2-character suffix of active SMFPRMxx parmlib member
6	(6)	CHARACTER	2		Reserved for alignment
8	(8)	SIGNED	4	QUAGBCURRMEMBERTIME	Timestamp in binary format (hundredths of seconds since midnight) that indicates the time that the SMFPRMxx member was activated, either at IPL or via a SET SMF command
12	(C)	SIGNED	4	QUAGBCURRMEMBERDATE	Date that the SMFPRMxx member was activated, either at IPL or via a SET SMF command, in 0yyddF format
16	(10)	CHARACTER	6	QUAGBCURRMEMBERVOL	Volser of the dataset where the active SMFPRMxx member was found
22	(16)	CHARACTER	44	QUAGBCURRMEMBERDSNAME	Name of the data set where the active SMFPRMxx member was found
66	(42)	CHARACTER	2	QUAGBIPLMEMBER	2-character suffix of SMFPRMxx parmlib member at IPL
68	(44)	SIGNED	4	QUAGBIPLMEMBERTIME	Timestamp in binary format (hundredths of seconds since midnight) that indicates the time that the SMFPRMxx member was read at IPL or SMF defaults were used

Table 514. Structure QUAGBTYP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
72	(48)	SIGNED	4	QUAGBIPLMEMBERDATE	Date that the SMFPRMxx member was read at IPL or SMF defaults were used in 0yydddF format
76	(4C)	CHARACTER	6	QUAGBIPLMEMBERVOL	Volser of the data set where the SMFPRMxx member specified at IPL was found
82	(52)	CHARACTER	44	QUAGBIPLMEMBERDSNAME	Name of data set where the SMFPRMxx member specified at IPL was found
126	(7E)	BITSTRING	4	QUAGBSETTINGS	Global settings flags
126	(7E)	BITSTRING	1	QUAGBCONFIGFLAGS	SMF configuration flags
Bit definitions:					
		1... ....		QUAGBCURRCONFIGURATIONMODIFIED	"X'80'" Indicates that the active SMF configuration (the parmli member identified by QuaGBCurrMember) was modified by a SETSMF command or a reply to IEE357A.
		.1.. ....		QUAGBIPLCONFIGURATIONMODIFIED	"X'40'" Indicates that the IPL time configuration (the parmli member identified by QuaGBIPLMember) was modified by a SETSMF command or a reply to IEE357A.
127	(7F)	BITSTRING	1	QUAGBRECORDING	Global recording settings
Bit definitions:					
		1... ....		QUAGBDATASET	"X'80'" Dataset recording is in effect
		.1.. ....		QUAGBLOGSTREAM	"X'40'" Logstream recording is in effect
128	(80)	BITSTRING	1	QUAGBFLOOD	SMF Record flood support
Bit definitions:					
		1... ....		QUAGBFLOODON	"X'80'" On when SMF record flood support is active. Off if flood support is inactive
129	(81)	BITSTRING	1	QUAGBNOBUFFS	Global NOBUFFS setting. When logstream recording is in effect, individual logstreams can override the global option with a logstream-specific value
Bit definitions:					
		1... ....		QUAGBNOBUFFSMMSG	"X'80'" NOBUFFS(MSG) is in effect
		.1.. ....		QUAGBNOBUFFSHALT	"X'40'" NOBUFFS(HALT) is in effect
130	(82)	CHARACTER	2		Reserved for alignment
132	(84)	SIGNED	4	QUAGBBUFUSEWARN	Global BufUseWarn value as a percentage. When logstream recording is in effect, individual logstreams may use a different value.
136	(88)	BITSTRING	1	QUAGBSYSFLAGS	Flags associated with the SYS keyword
Bit definitions:					

Table 514. Structure QUAGBTYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		QUAGBSYSDetail	"X'80'" When on SYS(DETAIL) is in effect. When off, SYS(NODETAIL) is in effect.
		.1.. ....		QUAGBSYSINTERVAL	"X'40'" When on SYS(INTERVAL) recording is in effect. When off, SYS(NOINTERVAL) is in effect.
		..1. ....		QUAGBSYSINTERVALTIME	"X'20'" Interval was specified as SYS(INTERVAL(hhmmss))
		...1 ....		QUAGBSYSINTERVALSMF	"X'10'" The global interval was specified as SYS(INTERVAL(SMF))
		.... 1...		QUAGBSYSINTERVALSYNC	"X'08'" Interval was specified as SYS(INTERVAL(SMF,SYNC)). QuaGBSysIntervalSMF is also on when this is on
137	(89)	CHARACTER	6	QUAGBSYSINTERVALVALUE	Interval value in HHMMSS character format. Only valid when QuaGBSysIntervalTime is set
143	(8F)	CHARACTER	2	QUAGBINTVAL	Global INTVAL value in character format
145	(91)	CHARACTER	2	QUAGBSYNCVAL	Global SYNC value character format
145	(91)	X'93'	0	QUAGBTYPE_LEN	"*-QUAGBTYPE"

Table 515. Structure QUAINTYPE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	QUAINTYPE	INMEM data format
0	(0)	BITSTRING	1	QUAINTYP	X'0A' For INMEM record. X'8A' for last INMEM record returned
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUAINLEN	Length of INMEM record
4	(4)	CHARACTER	26	QUAINNAME	In-Memory resource name
30	(1E)	BITSTRING	4	QUAINSTAT	INMEM Status
30	(1E)	BITSTRING	1	QUAINSTAT1	Status byte 1
Bit definitions:					

		1... ....		QUAINACT	"X'80'" INMEM active
		.1.. ....		QUAINCLN	"X'40'" INMEM being cleaned up
34	(22)	CHARACTER	2		Reserved for alignment
36	(24)	SIGNED	4	QUAINRSZ	The RESSIZMAX for this In-Memory resource (number of bytes)
40	(28)	SIGNED	4	QUAINHWM	The high water mark for the buffer area (number of bytes)
44	(2C)	SIGNED	4	QUAINLFT	Amount of storage used currently in the buffer area (number of bytes)
48	(30)	SIGNED	4	QUAINCONNECTCOUNT	Number of active connections to this In-Memory resource
52	(34)	CHARACTER	256	QUAINRECTYPE	256 byte representation of 2048 record types, where: bit 0 (byte 1, bit 0) = record type 0, bit 2047 (byte 256, bit 7) = record type 2047
52	(34)	X'134'	0	QUAINTYPE_LEN	"*-QUAINTYPE"

Table 516. Structure QUASBTYP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUASBTYP	Subsys data format
0	(0)	BITSTRING	1	QUASBTYP	X'0B' For Subsys record. X'8B' for last Subsys record returned
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUASBLEN	Length of Subsys record
4	(4)	CHARACTER	4	QUASBNAME	4-character subsystem name
8	(8)	BITSTRING	1	QUASBSUBSYSFLAGS	Flags associated with subsystem

Bit definitions:

	1... ....	QUASBSUBSYSDETAIL	"X'80'" When on SUBSYS(DETAIL) is in effect. When off, SUBSYS(NODETAIL) is in effect.
	.1.. ....	QUASBSUBSYSINTERVAL	"X'40'" When on SUBSYS(INTERVAL) recording is in effect. When off, SUBSYS(NOINTERVAL) is in effect.
	..1. ....	QUASBSUBSYSINTERVALTIME	"X'20'" Subsys interval was specified as SUBSYS(INTERVAL(hhmmss))
	...1 ....	QUASBSUBSYSINTERVALSMF	"X'10'" The subsys interval was specified as SUBSYS(INTERVAL(SMF))
	.... 1...	QUASBSUBSYSINTERVALSYNC	"X'08'" Interval was specified as SUBSYS(INTERVAL(SMF,SYNC)) QuaSBSubsysIntervalSMF is also on when this is on
9	(9) CHARACTER	6 QUASBSUBSYSINTERVALVALUE	Interval value in HHMMSS character format. Only valid when QuaSBSubsysIntervalTime is set

QUAA Constants

9	(9) X'2'	0	QUAALOGSTREAMTYPE	"2"
9	(9) X'3'	0	QUAAFLOODPOLICYMSGTYPE	"3"
9	(9) X'4'	0	QUAAFLOODPOLICYDROPTYPE	"4"
9	(9) X'5'	0	QUAADROPHISTORYTYPE	"5"
9	(9) X'6'	0	QUAADATASETTYPE	"6"
9	(9) X'7'	0	QUAAEXITTYPE	"7"
9	(9) X'8'	0	QUAARECORDTYPE	"8"
9	(9) X'9'	0	QUAAGLOBALTYPE	"9"
9	(9) X'A'	0	QUAAINMEMTYPE	"10"
9	(9) X'B'	0	QUAASUBSYSTYPE	"11"
9	(9) X'80'	0	QUAALASTENTRY	"128"
9	(9) X'F'	0	QUASBTYP_LEN	"*-QUASBTYP"

Table 517. Cross Reference for IFAQUAA

Name	Offset	Hex Tag
QUAADATASETTYPE	9	6
QUAADROPHISTORYTYPE	9	5
QUAAEXITTYPE	9	7
QUAAFLOODPOLICYDROPTYPE	9	4
QUAAFLOODPOLICYMSGTYPE	9	3
QUAAGLOBALTYPE	9	9

Table 517. Cross Reference for IFAQUAA (continued)

Name	Offset	Hex Tag
QUAAINMEMTYPE	9	A
QUAALASTENTRY	9	80
QUAALOGSTREAMTYPE	9	2
QUAARECORDTYPE	9	8
QUAASUBSYSTYPE	9	B
QUADSACTIVE	36	40
QUADSALT	36	20
QUADSCISIZE	44	
QUADSCLOSE	36	10
QUADSDUMP	36	80
QUADSError	36	8
QUADSLEN	2	
QUADSNAME	4	
QUADSSIZE	3C	
QUADSSTAT	36	
QUADSSTAT1	36	
QUADSTYP	0	
QUADSTYPE	0	
QUADSTYPE_LEN	44	48
QUADSUSED	40	
QUADSVOL	30	
QUAFENDINTVL	10	
QUAFEXTTYPE	4	
QUAFINTVLTIME	8	
QUAFMAXHIGHINTS	1C	
QUAFRECTHRESH	18	
QUAFSLEN	2	
QUAFSTYP	0	
QUAFSTYPE	0	
QUAFSTYPE_LEN	20	21
QUAFTYPE	20	
QUAGBBUFUSEWARN	84	
QUAGBCONFIGFLAGS	7E	
QUAGBCURRCONFIGURATIONMODIFIED	7E	80
QUAGBCURRMEMBER	4	
QUAGBCURRMEMBERDATE	C	
QUAGBCURRMEMBERDSNAME	16	
QUAGBCURRMEMBERSTIME	8	
QUAGBCURRMEMBERVOL	10	

Table 517. Cross Reference for IFAQUAA (continued)

Name	Offset	Hex Tag
QUAGBDATASET	7F	80
QUAGBFLOOD	80	
QUAGBFLOODON	80	80
QUAGBINTVAL	8F	
QUAGBIPLCONFIGURATIONMODIFIED	7E	40
QUAGBIPLMEMBER	42	
QUAGBIPLMEMBERDATE	48	
QUAGBIPLMEMBERDSNAME	52	
QUAGBIPLMEMBERTIME	44	
QUAGBIPLMEMBERVOL	4C	
QUAGBLEN	2	
QUAGBLOGSTREAM	7F	40
QUAGBNOBUFFS	81	
QUAGBNOBUFFSHALT	81	40
QUAGBNOBUFFSMSG	81	80
QUAGBRECORDING	7F	
QUAGBSETTINGS	7E	
QUAGBSYNCVAL	91	
QUAGBSYSDETAIL	88	80
QUAGBSYSFLAGS	88	
QUAGBSYSINTERVAL	88	40
QUAGBSYSINTERVALSMF	88	10
QUAGBSYSINTERVALSYNC	88	8
QUAGBSYSINTERVALTIME	88	20
QUAGBSYSINTERVALVALUE	89	
QUAGBTYP	0	
QUAGBTYPE	0	
QUAGBTYPE_LEN	91	93
QUAH#REC	0	
QUAH#REM	4	
QUAHDOFF	C	
QUAHDRTYPE	0	
QUAHDRTYPE_LEN	C	10
QUAHTLEN	8	
QUAINACT	1E	80
QUAINCLN	1E	40
QUAINCONNECTCOUNT	30	
QUAINHWM	28	
QUAINLEN	2	



Table 517. Cross Reference for IFAQUAA (continued)

Name	Offset	Hex Tag
QUAINLFT	2C	
QUAINNAME	4	
QUAINRECTYPE	34	
QUAINRSZ	24	
QUAINSTAT	1E	
QUAINSTAT1	1E	
QUAINTYP	0	
QUAINTYPE	0	
QUAINTYPE_LEN	34	134
QUALSACT	4C	40
QUALSALTHASHSHA512	D0	10
QUALSALTHASHTYPE	D0	
QUALSALTKEYHANDLE	A3	
QUALSALTSIGLI2	CF	20
QUALSALTSIGTYPE	CF	
QUALSALTTOKENNAME	A3	
QUALSARECSIGNON	A0	40
QUALSBFL	50	
QUALSBSZ	40	
QUALSBUW	D4	
QUALSBUWG	4C	2
QUALSCLN	4C	20
QUALSCMP	4D	20
QUALSCNT	4C	10
QUALSCPR	4D	40
QUALSCRQ	4D	80
QUALSCRYPTOFLAGS	A0	
QUALSDEF	4C	80
QUALSDSZ	5C	
QUALSDTM	54	
QUALSDWG	4C	8
QUALSEXTRECTYPE	0	
QUALSEXTRECTYPE_LEN	0	100
QUALSEXTRECTYPEBITS	0	
QUALSHASHSHA1	A2	80
QUALSHASHSHA256	A2	40
QUALSHASHSHA384	A2	20
QUALSHASHSHA512	A2	10
QUALSHASHTYPE	A2	

Table 517. Cross Reference for IFAQUAA (continued)

Name	Offset	Hex Tag
QUALSHWM	60	
QUALSKEYHANDLE	74	
QUALSLEN	2	
QUALSLFT	64	
QUALSNAME	4	
QUALSNBG	4C	4
QUALSNBH	4D	2
QUALSNBM	4D	4
QUALSPFG	4D	10
QUALSPFH	70	
QUALSPFM	6C	
QUALSPFT	68	
QUALSREC	20	
QUALSRECSIGNON	A0	80
QUALSSIGECDSA	A1	40
QUALSSIGRSA	A1	80
QUALSSIGTYPE	A1	
QUALSTAT	4C	
QUALSTB1	4C	
QUALSTB2	4D	
QUALSTB3	4E	
QUALSTB4	4F	
QUALSTOD	44	
QUALSTOKENNAME	74	
QUALSTYP	0	
QUALSTYPE	0	
QUALSTYPE_LEN	D4	D8
QUALSXTD	4D	8
QUALSXTOFF	1E	
QUAPDROPPEDRECORDS	8	
QUAPEXTTYPE	4	
QUAPFLOODEND	20	
QUAPFLOODSTART	10	
QUAPRECTYPE	1	
QUAPSLEN	2	
QUAPSTYP	0	
QUAPSTYPE	0	
QUAPSTYPE_LEN	20	30
QUARCFIRSTSUBTYPE	10	

Table 517. Cross Reference for IFAQUAA (continued)

Name	Offset	Hex Tag
QUARCFIRSTTYPE	8	
QUARCLASTSUBTYPE	14	
QUARCLASTTYPE	C	
QUARCLEN	2	
QUARCSUBSYS	4	
QUARCTYP	0	
QUARCTYPE	0	
QUARCTYPE_LEN	14	18
QUASBLEN	2	
QUASBNAME	4	
QUASBSUBSYSDETAIL	8	80
QUASBSUBSYSFLAGS	8	
QUASBSUBSYSINTERVAL	8	40
QUASBSUBSYSINTERVALSMF	8	10
QUASBSUBSYSINTERVALSYNC	8	8
QUASBSUBSYSINTERVALTIME	8	20
QUASBSUBSYSINTERVALVALUE	9	
QUASBTYP	0	
QUASBTYPE	0	
QUASBTYPE_LEN	9	F
QUAXTLEN	2	
QUAXTNAME	8	
QUAXTSUBSYS	4	
QUAXTTYP	0	
QUAXTTYPE	0	
QUAXTTYPE_LEN	8	10

## IFARCINM information

### IFARCINM programming interface information

IFARCINM is a programming interface.

### IFARCINM heading information

<b>Common name:</b>	In Memory Return and Reason code definitions
<b>Macro ID:</b>	IFARCINM
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	System Management Facility (SC100)
<b>Eye-catcher ID:</b>	NONE

**Storage attributes:** Main Storage: N/A

**Size:** 0 bytes

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** None

**Function:** In Memory Return and Reason code definitions

## IFARCINM mapping

Table 518. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IFARCINM_1; Successful return and reason codes					
		.... ....		IFAINMRETCODEOK	"X'00000000" Meaning: The service was successful Action: None required.
		.... ....		IFAINMRSNCODEOK	"X'00000000" Meaning: The service was successful Action: None required.
Warning return and reason codes					
		.... .1..		IFAINMRETCODEWARN	"X'00000004" Meaning: Warning Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IFAINMMISSEDDATA	"X'00000401" Meaning: Some data was missed during processing. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IFAINMNOMOREDATA	"X'00000402" Meaning: This resource has been removed from the configuration and will never have new data. Action: Disconnect from the resource.
0	(0)	BITSTRING	0	IFAINMNOMOREDATATMP	"X'00000403" Meaning: There is currently no new data in this resource and the caller requested not to block the request. Action: Retry get request later.
0	(0)	BITSTRING	0	IFAINMGETINPROGGET	"X'00000404" Meaning: There is currently a GET call in progress for this connection. Action: Wait for active GET call to complete before issuing another GET call.
0	(0)	BITSTRING	0	IFAINMGETINPROGDSC	"X'00000405" Meaning: There is currently a GET call in progress for this connection. Active GET call has been notified of the disconnection attempt. Action: Wait for the GET call to return before issuing another disconnect.
0	(0)	BITSTRING	0	IFAINMDSCINPROGGET	"X'00000406" Meaning: There is currently a DISCONNECT call in progress for this connection. Once the active DISCONNECT call is complete the connection will no longer be active. Action: Reestablish a connection if you wish to perform a GET call.
0	(0)	BITSTRING	0	IFAINMDSCINPROGDSC	"X'00000407" Meaning: There is currently a DISCONNECT call in progress for this connection. Action: None.

Table 518. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IFAINMGETFORCEDOUT	"X'00000408'" Meaning: A disconnect was attempted on an active connection with an in-progress GET call. GET calls can no longer be made for this connection. Action: Reissue a disconnect.
Error return and reason codes					
	.... 1...			IFAINMRETCODEERROR	"X'00000008'" Meaning: Invalid input parameter. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IFAINMBADMODE	"X'00000801'" Meaning: Caller was not running as a task or was in cross-memory mode. Programmer Action: Run under a task in P=H=S
0	(0)	BITSTRING	0	IFAINMBADPARMLIST	"X'00000802'" Meaning: The input parmlist could not be accessed. Programmer Action: Check for one of the following possible errors: Program exception during access of parameter list. Parameter list has invalid address.
0	(0)	BITSTRING	0	IFAINMNOCONNECTIONS	"X'00000803'" Meaning: There are no available connections Programmer Action: Determine the cause for the lack of connections.
0	(0)	BITSTRING	0	IFAINMBADCONTOKEN	"X'00000804'" Meaning: A bad connection token was provided Programmer Action: Check that the connection token provided is correct.
0	(0)	BITSTRING	0	IFAINMUNSUPPORTED	"X'00000805'" Meaning: Unsupported options specified in the parameter block
0	(0)	BITSTRING	0	IFAINMNOTENOUGHSPACE	"X'00000806'" Meaning: Not enough space in output buffer for a record.
0	(0)	BITSTRING	0	IFAINMNOSUCHRESOURCE	"X'00000807'" Meaning: No resource was found with the specified name.
0	(0)	BITSTRING	0	IFAINMNOTENOUGHQRYSP	"X'00000808'" Meaning: Not enough output space was provided for the query.
Environment Error return and reason codes					
	.... 11..			IFAINMRETCODEENVERR	"X'0000000C'" Meaning: Environmental error. Actions: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IFAINMSMFNOTACTIVE	"X'00000C01'" Meaning: SMF recording is not active. System Action: No records are returned Programmer Action: None.
0	(0)	BITSTRING	0	IFAINMNOREALTIME	"X'00000C02'" Meaning: The SMF Real-time support is not available. System Action: The required PTF with the support may not be installed. Programmer Action: None.
0	(0)	BITSTRING	0	IFAINMOBTAINFAILURE	"X'00000C03'" Meaning: Unable to obtain storage in the SMF address space needed to generate in-memory data in response to a request. System Action: None. Programmer Action: None.

Table 518. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Fatal Error return and reason codes					
	...1 ....			IFAINMRETCODEFATAL	"X'00000010'" Meaning: Unexpected error. The state of the request is unpredictable. Actions: Contact IBM support center.

Table 519. Cross Reference for IFARCINM

Name	Offset	Hex	Tag
IFAINMBADCONTOKEN	0		804
IFAINMBADMODE	0		801
IFAINMBADPARMLIST	0		802
IFAINMDSCINPROGDSC	0		407
IFAINMDSCINPROGGET	0		406
IFAINMGETFORCEDOUT	0		408
IFAINMGETINPROGDSC	0		405
IFAINMGETINPROGGET	0		404
IFAINMMISSEDDATA	0		401
IFAINMNOCONNECTIONS	0		803
IFAINMNOMOREDATA	0		402
IFAINMNOMOREDATATMP	0		403
IFAINMNOREALTIME	0		C02
IFAINMNOSUCHRESOURCE	0		807
IFAINMNOTENOUGHQRYSP	0		808
IFAINMNOTENOUGHSPACE	0		806
IFAINMOBTAINFAILURE	0		C03
IFAINMRETCODEENVERR	0		C
IFAINMRETCODEERROR	0		8
IFAINMRETCODEFATAL	0		10
IFAINMRETCODEOK	0		0
IFAINMRETCODEWARN	0		4
IFAINMRSNCODEOK	0		0
IFAINMSMFNOTACTIVE	0		C01
IFAINMUNSUPPORTED	0		805

## IFASMFH information

### IFASMFH programming interface information

IFASMFH is a programming interface.

## IFASMFH heading information

<b>Common name:</b>	SMF Record Header Mapping
<b>Macro ID:</b>	IFASMFH
<b>DSECT name:</b>	IFASMFH
<b>Owning component:</b>	System Management Facilities (SC100)
<b>Eye-catcher ID:</b>	Offset: N/A Length: N/A
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A SMFHDR -- X'0018' bytes SMFHDR1 -- X'0038' bytes SMFHDR2 -- X'005C' bytes
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	This macro maps the standard and extended SMF record headers.

## IFASMFH mapping

Table 520. Structure SMFHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SMFHDR	
0	(0)	CHARACTER	24	SMFHDR_STANDARD_HDR	Standard record header
0	(0)	CHARACTER	18	SMFHDR_MINIMUM_HDR	Minimum record header
0	(0)	SIGNED	2	SMFHDR_LEN	RDW record length
Bit definitions:					
		1... ....		SMFHDR_LEN_HIGHBIT	"X'80'" Rec len high order bit
2	(2)	SIGNED	2	SMFHDR_SEG	RDW segment descriptor
4	(4)	BITSTRING	1	SMFHDR_FLAG	Flag byte
Bit definitions:					
		.1.. ....		SMFHDR_STV	"X'40'" When set, subtypes are valid
5	(5)	BITSTRING	1	SMFHDR_RTY	Record type
6	(6)	SIGNED	4	SMFHDR_TIME	Record write time
10	(A)	CHARACTER	4	SMFHDR_DATE	Date record was written
14	(E)	CHARACTER	4	SMFHDR_SID	System ID
18	(12)	CHARACTER	6	SMFHDR_STD_HDR	
18	(12)	CHARACTER	4	SMFHDR_WID	SUBSYSTEM ID

Table 520. Structure SMFHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
22	(16)	SIGNED	2	SMFHDR_STP	Record subtype ***** ***** Extended SMF Record Header Version 1 For this header to be valid and present in the record, the following conditions must be met: - SMFHDR1_Len must be >= 56 ('38'x) - SMFHDR1_Ext must be on - SMFHDR1_Stv must be on - SMFHDR1_Rty must = 126 ('7E'x) - SMFHDR1_Ext_Len must = 32 ('20'x) - SMFHDR1_Version must = 1 ***** ***** *****

Table 521. Structure SMFHDR1

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SMFHDR1	
0	(0)	CHARACTER	24	SMFHDR1_STANDARD_HDR	Standard record header
0	(0)	CHARACTER	18	SMFHDR1_MINIMUM_HDR	Minimum record header
0	(0)	SIGNED	2	SMFHDR1_LEN	RDW record length must be >= 56 ( '36'x)
Bit definitions:					
		1... ....		SMFHDR1_LEN_HIGHBIT	"X'80'" Rec len high order bit
2	(2)	SIGNED	2	SMFHDR1_SEG	RDW segment descriptor
4	(4)	BITSTRING	1	SMFHDR1_FLAG	Flag byte
Bit definitions:					
		.1.. ....		SMFHDR1_STV	"X'40'" Subtypes are valid must be on
		..1. ....		SMFHDR1_EXT	"X'20'" Use the extended header must be on
5	(5)	BITSTRING	1	SMFHDR1_RTY	Record type - always 126 ('7E'x) for this header version
6	(6)	SIGNED	4	SMFHDR1_TIME	Record write time
10	(A)	CHARACTER	4	SMFHDR1_DATE	Date record was written
14	(E)	CHARACTER	4	SMFHDR1_SID	System ID
18	(12)	CHARACTER	6	SMFHDR1_STD_HDR	
18	(12)	CHARACTER	4	SMFHDR1_WID	SUBSYSTEM ID
22	(16)	SIGNED	2	SMFHDR1_STP	Record subtype
24	(18)	CHARACTER	32	SMFHDR1_EXTENDED_HDR	Extended record header
24	(18)	CHARACTER	28	SMFHDR1_V1_EXT_HDR	
24	(18)	SIGNED	2	SMFHDR1_EXT_LEN	Length of this section, must be 32 ( '20'x)
26	(1A)	BITSTRING	1	SMFHDR1_VERSION	Version, must be 1
27	(1B)	CHARACTER	1	SMFHDR1_FLAGS	Flag byte
Bit definitions:					
		1... ....		SMFHDR1_IEFU86	"X'80'" When on, indicates that the IEFU86 exit was called for this record



Table 521. Structure SMFHDR1 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	CHARACTER	16	SMFHDR1_STCKE	Extended TOD clock when record was written
44	(2C)	CHARACTER	8	SMFHDR1_TZO	TOD value that is used to convert GMT to local time. Taken from CVTLDT0.
52	(34)	SIGNED	2	SMFHDR1_EXT_RTY	Extended record type, always present for this header version.
54	(36)	CHARACTER	2		Reserved ***** ***** Extended SMF Record Header Version 2. For this header to be valid and present in the record, the following conditions must be met by the builder of the SMF record: - SMFHDR2_Len must be >= 92 ('5C'x) - SMFHDR2_Ext must be on - SMFHDR2_Stv must be on - SMFHDR2_Rty must = 126 ('7E'x) - SMFHDR2_Len must = 68 ('44'x) - SMFHDR2_Ext_Version must = 2 - SMFHDR2_Rsv1 must be zero. ***** *****

Table 522. Structure SMFHDR2

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SMFHDR2	Version 2
0	(0)	CHARACTER	24	SMFHDR2_STANDARD_HDR	Standard record header
0	(0)	CHARACTER	18	SMFHDR2_MINIMUM_HDR	Minimum record header
0	(0)	SIGNED	2	SMFHDR2_LEN	RDW record length must be >= 92 ('5C'x)
Bit definitions:					
		1... ....		SMFHDR2_LEN_HIGHBIT	"X'80'" Rec len high order bit
2	(2)	SIGNED	2	SMFHDR2_SEG	RDW segment descriptor
4	(4)	BITSTRING	1	SMFHDR2_FLAG	Flag byte
Bit definitions:					
		.1.. ....		SMFHDR2_STV	"X'40'" Subtypes are valid. This bit must be on.
		..1. ....		SMFHDR2_EXT	"X'20'" Extended header is present. This bit must be on.
5	(5)	BITSTRING	1	SMFHDR2_RTY	Record type must be 126 ('7E'x) for this header version
6	(6)	SIGNED	4	SMFHDR2_TIME	Time when the record was moved to the SMF buffer. Set by IBM for IBM assigned record types.
10	(A)	CHARACTER	4	SMFHDR2_DATE	Date when the record was moved to the SMF buffer. Set by IBM for IBM assigned record types.
14	(E)	CHARACTER	4	SMFHDR2_SID	System ID. Set by IBM for IBM assigned record types.
18	(12)	CHARACTER	4	SMFHDR2_WID	Subsystem ID
22	(16)	SIGNED	2	SMFHDR2_STP	Record subtype
24	(18)	CHARACTER	68	SMFHDR2_EXTENDED_HDR	Extended header
24	(18)	SIGNED	2	SMFHDR2_EXT_LEN	Length of this section, must be 68 ('44'x).
26	(1A)	BITSTRING	1	SMFHDR2_VERSION	Version, must be 2.

Table 522. Structure SMFHDR2 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
27	(1B)	CHARACTER	1	SMFHDR2_FLAGS	Flag byte
Bit definitions:					
		1... ....		SMFHDR2_IEFU86	"X'80'" When on, indicates that the IEFU86 exit was called for this record. Set by IBM.
28	(1C)	CHARACTER	16	SMFHDR2_STCKE	Extended TOD clock when record was moved to the SMF buffer. Set by IBM.
44	(2C)	CHARACTER	8	SMFHDR2_TZO	TOD value at the time when the record was moved to the SMF buffer. This value can be used to convert GMT to local time. Taken from CVTLDT0. Set by IBM.
52	(34)	SIGNED	2	SMFHDR2_EXT_RTY	Extended Record type, values 0-2047 (hexadecimal values 0-7FF).
54	(36)	CHARACTER	2	SMFHDR2_RSV1	Reserved. Must be zero.
56	(38)	SIGNED	4	SMFHDR2_ZOS_PRODSEQ	This field contains the Z/OS version, release, and modification level of the system where the record was moved to the SMF buffer. Taken from ECVTPSEQ, Set by IBM.
60	(3C)	CHARACTER	16	SMFHDR2_TZO_16	Local time/date offset in STCKE format when the record was moved to the SMF buffer. Taken from ECVTLDT0. Set by IBM.
76	(4C)	CHARACTER	16	SMFHDR2_LSO_16	Leap second value in effect when the record was moved to the SMF buffer, in STCKE format. Taken from ECVTL0. Set by IBM. End of all SMFHDR versions
Constants					
76	(4C)	X'2'	0	SMFHDR_SMFEXT_MAXIMUM_VERSION	"2" Current maximum version
76	(4C)	X'800'	0	SMFHDR_MAX_RECORD_TYPES	"2048" Maximum number of types
76	(4C)	X'0'	0	SMFHDR_MIN_RTY_NUMBER	"0" Lowest allowable record type
76	(4C)	X'7FF'	0	SMFHDR_MAX_RTY_NUMBER	"2047" Highest allowable record type
76	(4C)	X'FF'	0	SMFHDR_MAX_STD_REC_TYPE	"255" Highest standard record type
76	(4C)	X'7E'	0	SMFHDR_EXTENDED_RECIND	"126" Used to indicate that the record has an extend type
76	(4C)	X'12'	0	SMFHDR_MIN_LEN	"18" Length of the minimum header.
76	(4C)	X'18'	0	SMFHDR_STD_LEN	"24" Length of the standard header.
76	(4C)	X'38'	0	SMFHDR_V1_LEN	"56" Length of SMFHDR1_Standard_Hdr + SMFHDR1_Extended_Hdr.
76	(4C)	X'5C'	0	SMFHDR_V2_LEN	"92" Length of SMFHDR2_Standard_Hdr + SMFHDR2_Extended_Hdr.
76	(4C)	X'20'	0	SMFHDR_EXT_V1_LEN	"32" Length of SMFHDR1_Extended_Hdr.
76	(4C)	X'44'	0	SMFHDR_EXT_V2_LEN	"68" Length of SMFHDR2_Extended_Hdr.
76	(4C)	X'8000'	0	SMFHDR_NUM_RECORD_SUBTYPES	"32768" The total num of subtypes
76	(4C)	X'12'	0	SMFHDR_MINIMUM_ALLOWED_REC_LEN	"18" Minimum allowable length of an SMF record.
76	(4C)	X'7FF4'	0	SMFHDR_MAXIMUM_ALLOWED_REC_LEN	"32756" Maximum allowable length of an SMF record.

Table 522. Structure SMFHDR2 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
IBM reserved record types and user reserved record types boundary indicators: IBM assigned record types: 0-127 and 1152-2047 User assigned record types: 128-1151					
76	(4C)	X'80'	0	SMFHDR_EXT_USERREC_LOW	"128" Low boundary of the user record types
76	(4C)	X'47F'	0	SMFHDR_EXT_USERREC_HIGH	"1151" High boundary of the extended IBM record type

Table 523. Cross Reference for IFASMFH

Name	Offset	Hex	Tag
SMFHDR	0		
SMFHDR_DATE	A		
SMFHDR_EXT_USERREC_HIGH	4C	47F	
SMFHDR_EXT_USERREC_LOW	4C	80	
SMFHDR_EXT_V1_LEN	4C	20	
SMFHDR_EXT_V2_LEN	4C	44	
SMFHDR_EXTENDED_RECIND	4C	7E	
SMFHDR_FLAG	4		
SMFHDR_LEN	0		
SMFHDR_LEN_HIGHBIT	0	80	
SMFHDR_MAX_RECORD_TYPES	4C	800	
SMFHDR_MAX_RTY_NUMBER	4C	7FF	
SMFHDR_MAX_STD_REC_TYPE	4C	FF	
SMFHDR_MAXIMUM_ALLOWED_REC_LEN	4C	7FF4	
SMFHDR_MIN_LEN	4C	12	
SMFHDR_MIN_RTY_NUMBER	4C	0	
SMFHDR_MINIMUM_ALLOWED_REC_LEN	4C	12	
SMFHDR_MINIMUM_HDR	0		
SMFHDR_NUM_RECORD_SUBTYPES	4C	8000	
SMFHDR_RTY	5		
SMFHDR_SEG	2		
SMFHDR_SID	E		
SMFHDR_SMFEXT_MAXIMUM_VERSION	4C	2	
SMFHDR_STANDARD_HDR	0		
SMFHDR_STD_HDR	12		
SMFHDR_STD_LEN	4C	18	
SMFHDR_STP	16		
SMFHDR_STV	4	40	
SMFHDR_TIME	6		
SMFHDR_V1_LEN	4C	38	

Table 523. Cross Reference for IFASMFH (continued)

Name	Offset	Hex Tag
SMFHDR_V2_LEN	4C	5C
SMFHDR_WID	12	
SMFHDR1	0	
SMFHDR1_DATE	A	
SMFHDR1_EXT	4	20
SMFHDR1_EXT_LEN	18	
SMFHDR1_EXT_RTY	34	
SMFHDR1_EXTENDED_HDR	18	
SMFHDR1_FLAG	4	
SMFHDR1_FLAGS	1B	
SMFHDR1_IEFU86	1B	80
SMFHDR1_LEN	0	
SMFHDR1_LEN_HIGHBIT	0	80
SMFHDR1_MINIMUM_HDR	0	
SMFHDR1_RTY	5	
SMFHDR1_SEG	2	
SMFHDR1_SID	E	
SMFHDR1_STANDARD_HDR	0	
SMFHDR1_STCKE	1C	
SMFHDR1_STD_HDR	12	
SMFHDR1_STP	16	
SMFHDR1_STV	4	40
SMFHDR1_TIME	6	
SMFHDR1_TZO	2C	
SMFHDR1_VERSION	1A	
SMFHDR1_V1_EXT_HDR	18	
SMFHDR1_WID	12	
SMFHDR2	0	
SMFHDR2_DATE	A	
SMFHDR2_EXT	4	20
SMFHDR2_EXT_LEN	18	
SMFHDR2_EXT_RTY	34	
SMFHDR2_EXTENDED_HDR	18	
SMFHDR2_FLAG	4	
SMFHDR2_FLAGS	1B	
SMFHDR2_IEFU86	1B	80
SMFHDR2_LEN	0	
SMFHDR2_LEN_HIGHBIT	0	80
SMFHDR2_LSO_16	4C	

Table 523. Cross Reference for IFASMFH (continued)

Name	Offset	Hex Tag
SMFHDR2_MINIMUM_HDR	0	
SMFHDR2_RSV1	36	
SMFHDR2_RTY	5	
SMFHDR2_SEG	2	
SMFHDR2_SID	E	
SMFHDR2_STANDARD_HDR	0	
SMFHDR2_STCKE	1C	
SMFHDR2_STP	16	
SMFHDR2_STV	4	40
SMFHDR2_TIME	6	
SMFHDR2_TZ0	2C	
SMFHDR2_TZ0_16	3C	
SMFHDR2_VERSION	1A	
SMFHDR2_WID	12	
SMFHDR2_ZOS_PRODSEQ	38	

## IFAUCCC information

### IFAUCCC programming interface information

IFAUCCC is a programming interface.

### IFAUCCC heading information

**Common name:** Usage Report Program Customer Data

**Macro ID:** IFAUCCC

**DSECT name:** UCCC

**Owning component:** Usage Report Program (SCURP)

**Eye-catcher ID:** UCCC  
Offset: '00'X  
Length: 4

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 2  
Key: 8  
Data Space: No  
Residency: Virtual

**Size:** 344

**Created by:** IFAUARTN

**Pointed to by:** UPRMCD

**Serialization:** N/A

**Function:**

Maps data specified on CUSTOMER control statement  
of Usage Report Program, IFAURP.

**IFAUCCC mapping**

Table 524. Structure UCCC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UCCC	, UCCC Mapping
0	(0)	CHARACTER	4	UCCCID	UCCC eye catcher
4	(4)	SIGNED	2	UCCCLEN	UCCC length
6	(6)	BITSTRING	1	UCCCVERS	UCCC version
7	(7)	BITSTRING	1	UCCCRESD	Reserved
8	(8)	CHARACTER	40	UCCNAME	Customer Name
48	(30)	CHARACTER	40	UCCCADD1	Customer address line 1
88	(58)	CHARACTER	40	UCCCADD2	Customer address line 2
128	(80)	CHARACTER	40	UCCCADD3	Customer address line 3
168	(A8)	CHARACTER	40	UCCCADD4	Customer address line 4
208	(D0)	CHARACTER	40	UCCCADD5	Customer address line 5
248	(F8)	CHARACTER	40	UCCCADD6	Customer address line 6
288	(120)	CHARACTER	20	UCCCONTA	Customer contact
308	(134)	CHARACTER	20	UCCCPHON	Customer contact's phone
328	(148)	CHARACTER	1	UCCCDATA	Customer data origination
329	(149)	CHARACTER	15	UCCCRSV1	Reserved
329	(149)	X'158'	0	UCCCEND	"*" End of UCCC
329	(149)	X'158'	0	UCCCSIZE	"UCCCEND-UCCC" Size of UCCC
329	(149)	X'C3C3C3'	0	UCCCCID	"C'UCCC'" UCCC Eye Catcher
329	(149)	X'1'	0	UCCC313	"1" UCCC Version
329	(149)	X'2'	0	UCCCS29	"2" UCCC Version 05/390 02.09
329	(149)	X'2'	0	UCCCOVERC	"UCCCS29" Current version

Table 525. Cross Reference for IFAUCCC

Name	Offset	Hex Tag
UCCC	0	
UCCCADD1	30	
UCCCADD2	58	
UCCCADD3	80	
UCCCADD4	A8	
UCCCADD5	D0	
UCCCADD6	F8	
UCCCCID	149	C3C3C3
UCCCDATA	148	
UCCCEND	149	158
UCCCID	0	
UCCCLEN	4	
UCCNAME	8	

Table 525. Cross Reference for IFAUCCC (continued)

Name	Offset	Hex Tag
UCCCONTA	120	
UCCCPHON	134	
UCCCRESD	7	
UCCCRSV1	149	
UCCCSIZE	149	158
UCCCS29	149	2
UCCCOVERC	149	2
UCCCOVERS	6	
UCCC313	149	1

## IFAUMCC information

### IFAUMCC programming interface information

IFAUMCC is a programming interface.

### IFAUMCC heading information

**Common name:** Usage Report Program Processor Table

**Macro ID:** IFAUMCC

**DSECT name:** UMCC UMCPROCT

**Owning component:** Usage Report Program (SCURP)

**Eye-catcher ID:** UMCC  
Offset: '00'X  
Length: 4

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 2  
Key: 8  
Data Space: No  
Residency: Virtual

**Size:** UMCC - 36 bytes  
UMCPROCT - 44 bytes \* UMCCPRCT  
UMCCLST - 28 bytes \* UMCCCLCT

**Created by:** IFAURP

**Pointed to by:** UPRMMCCT

**Serialization:** N/A

**Function:** Maps processor and cluster entries in processor table of Usage Report Program, IFAURP.

## IFAUMCC mapping

Table 526. Structure UMCC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	UMCC	UMCC Mapping
0	(0)	CHARACTER	4	UMCCID	UMCC eye catcher
4	(4)	SIGNED	2	UMCCLEN	UMCC length
6	(6)	BITSTRING	1	UMCCVERS	UMCC version
7	(7)	CHARACTER	1	UMCCRSV1	Reserved
8	(8)	SIGNED	2	UMCCPRCT	Processor Table entry count
10	(A)	SIGNED	2	UMCCCLCT	Cluster Table entry count
12	(C)	ADDRESS	4	UMCCPRPT	Address of processor table
16	(10)	ADDRESS	4	UMCCCLPT	Address of cluster table
20	(14)	CHARACTER	16	UMCCRSV2	Reserved
20	(14)	X'24'	0	UMCCEND	"*" End of UMCC
20	(14)	X'24'	0	UMCCSIZE	"UMCCEND-UMCC" Size of UMCC

Table 527. Structure UMCPROCT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	UMCPROCT	Processor Table entries
0	(0)	BITSTRING	2	UMCPTYPE	Processor Type - e.g. '9021'x
2	(2)	CHARACTER	4	UMCPTYPEC	Processor Type - e.g. '9021'
6	(6)	CHARACTER	8	UMCPMOD	Processor Model - e.g. '982 '
14	(E)	BITSTRING	1	UMCPVER	Version Number
15	(F)	SIGNED	1	UMCPCPCT	CP Count
16	(10)	BITSTRING	2	UMCPFLAG(0)	Flags
16	(10)	BITSTRING	1	UMCPFLG1	Flag byte 1
		1... ....		UMCPDCCP	"X'80'" On= Processor is coupling capable
		.1.. ....		UMCPNVAL	"X'40'" On= version in this entry not valid
		..1. ....		UMCPNVPS	"X'20'" On= this entry cannot be used in the PROCESSOR statement
		...1 ....		UMCPRMOD	"X'10'" On= additional processing needed to determine processor model
17	(11)	BITSTRING	1	UMCPFLG2	Flag byte 2
24	(18)	DBL WORD	8	UMCPNUM	SU Factor - float format
32	(20)	CHARACTER	16	UMCPMDL	V1-CPC Model
48	(30)	CHARACTER	2	UMCPRS2	Reserved
48	(30)	X'32'	0	UMCPTEND	"*"
48	(30)	X'32'	0	UMCPTLEN	"UMCPTEND-UMCPROCT" Length of processor table entry

Table 528. Structure UMCLST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	UMCLST	Cluster table
0	(0)	CHARACTER	6	UMCLTYPE	Cluster type - e.g. '9672 '
6	(6)	CHARACTER	3	UMCCMOD	Cluster model - e.g. 'E06'
9	(9)	CHARACTER	16	UMCCRSV3	Reserved



Table 528. Structure UMCCCLST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
9	(9)	X'19'	0	UMCCTEND	"*"
9	(9)	X'19'	0	UMCCTLEN	"UMCCTEND-UMCCCLST" Length of cluster table entry
9	(9)	X'D4C3C3'	0	UMCCCID	"C'UMCC'" UMCC Eye Catcher
9	(9)	X'1'	0	UMCC313	"1" UMCC Version
9	(9)	X'1'	0	UMCCVERC	"UMCC313" Current version

Table 529. Cross Reference for IFAUMCC

Name	Offset	Hex	Tag
UMCC	0		
UMCCCID	9	D4C3C3	
UMCCCLCT	A		
UMCCCLPT	10		
UMCCEND	14		24
UMCCID	0		
UMCCLEN	4		
UMCCCLST	0		
UMCCMOD	6		
UMCCPRCT	8		
UMCCPRPT	C		
UMCCRSV1	7		
UMCCRSV2	14		
UMCCRSV3	9		
UMCCSIZE	14		24
UMCCTEND	9		19
UMCCTLEN	9		19
UMCCTYPE	0		
UMCCVERC	9		1
UMCCVERS	6		
UMCC313	9		1
UMPCPCT	F		
UMCPDCCP	10		80
UMCPFLAG	10		
UMCPFLG1	10		
UMCPFLG2	11		
UMCPMDL	20		
UMCPMOD	6		
UMCPNUM	18		
UMCPNVAL	10		40
UMCPNVPS	10		20

Table 529. Cross Reference for IFAUMCC (continued)

Name	Offset	Hex Tag
UMCPRMOD	10	10
UMCPROCT	0	
UMCPRSV2	30	
UMCPTEND	30	32
UMCPTLEN	30	32
UMCPTYPC	2	
UMCPTYPE	0	
UMCPVER	E	

## IFAUOCC information

### IFAUOCC programming interface information

IFAUOCC is a programming interface.

### IFAUOCC heading information

<b>Common name:</b>	Usage Report Program Product Owner Data
<b>Macro ID:</b>	IFAUOCC
<b>DSECT name:</b>	UOCC
<b>Owning component:</b>	Usage Report Program (SCURP)
<b>Eye-catcher ID:</b>	UOCC Offset: '00'X Length: 4
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 2 Key: 8 Data Space: No Residency: Virtual
<b>Size:</b>	58 * Number of Unique Product Owners Specified when running IFAURP.
<b>Created by:</b>	IFAUARTN
<b>Pointed to by:</b>	USIDUOCC, UOCCNEXT
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps product owner data specified on PRODUCT control statement of Usage Report Program, IFAURP.

## IFAUOCC mapping

Table 530. Structure UOCC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UOCC	UOCC Mapping
0	(0)	CHARACTER	4	UOCCID	UOCC eye catcher
4	(4)	BITSTRING	2	UOCCLEN	UOCC length
6	(6)	BITSTRING	1	UOCCVERS	UOCC version
7	(7)	BITSTRING	1	UOCCFLAG	Flags
		1... ....		UOCCHIST	"X'80'" ON=UOCC from history
		.1... ....		UOCCSTRT	"X'40'" ON=1st product started
8	(8)	ADDRESS	4	UOCCNEXT	Address of next UOCC
12	(C)	CHARACTER	16	UOCCNAME	Product owner name
28	(1C)	ADDRESS	4	UOCCUPCC	Address of 1st UPCC
32	(20)	CHARACTER	2	UOCCALGN	ALIGN value
34	(22)	CHARACTER	8	UOCCDATE	1st product start date for this vendor or testdate
42	(2A)	CHARACTER	16	UOCCRSV3	Reserved
42	(2A)	X'3A'	0	UOCCEND	"*" End of UOCC
42	(2A)	X'3A'	0	UOCCSIZE	"UOCCEND-UOCC" Size of UOCC
42	(2A)	X'D6C3C3'	0	UOCCCID	"C'UOCC'" UOCC Eye catcher
42	(2A)	X'1'	0	UOCC313	"1" UOCC Version - SP313
42	(2A)	X'1'	0	UOCCVERC	"UOCC313" Current Version

Table 531. Cross Reference for IFAUOCC

Name	Offset	Hex Tag
UOCC	0	
UOCCALGN	20	
UOCCCID	2A	D6C3C3
UOCCDATE	22	
UOCCEND	2A	3A
UOCCFLAG	7	
UOCCHIST	7	80
UOCCID	0	
UOCCLEN	4	
UOCCNAME	C	
UOCCNEXT	8	
UOCCRSV3	2A	
UOCCSIZE	2A	3A
UOCCSTRT	7	40
UOCCUPCC	1C	
UOCCVERC	2A	1
UOCCVERS	6	
UOCC313	2A	1

## IFAUPCC information

### IFAUPCC programming interface information

IFAUPCC is a programming interface.

### IFAUPCC heading information

<b>Common name:</b>	Usage Report Program Product Data
<b>Macro ID:</b>	IFAUPCC
<b>DSECT name:</b>	UPCC
<b>Owning component:</b>	Usage Report Program (SCURP)
<b>Eye-catcher ID:</b>	UPCC Offset: '00'X Length: 4
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 2 Key: 8 Data Space: No Residency: Virtual
<b>Size:</b>	90
<b>Created by:</b>	IFAUARTN
<b>Pointed to by:</b>	UOCCUPCC, UPCCNEXT
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps info specified on PRODUCT keyword of Usage Report Program, IFAURP.

### IFAUPCC mapping

Table 532. Structure UPCC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPCC	UPCC Mapping
0	(0)	CHARACTER	4	UPCCID	UPCC eye catcher
4	(4)	BITSTRING	2	UPCCLEN	UPCC length
6	(6)	BITSTRING	1	UPCCVERS	UPCC version
7	(7)	BITSTRING	1	UPCCFLAG	Flags
		1... ....		UPCCHIST	"X'80'" ON=UPCC from history
		.1... ....		UPCCHFND	"X'40'" ON=Match found in history
8	(8)	ADDRESS	4	UPCCNEXT	Address of next UPCC
12	(C)	CHARACTER	16	UPCCNAME	Product owner name
28	(1C)	CHARACTER	8	UPCCFUNC	Product function
36	(24)	CHARACTER	8	UPCCSTRT	Product start or testdate date in YYYYMMDD format
44	(2C)	CHARACTER	30	UPCCSTAA	Product status array
74	(4A)	CHARACTER	16	UPCCRSV3	Reserved

Table 533. Structure UPCCSTAD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPCCSTAD	Mapping of UPCCSTAA array Product status array - one entry for each of last three measurement periods
0	(0)	BITSTRING	1	UPCCDAT	1st day of measurement period in which START or STOP takes effect Blank if UPCCSET=0. Date in YYYYMMDD format.
1	(1)	BITSTRING	1	UPCCSET	0= product in neither "START" nor "STOP" state 1= product in "START" state 2= product in "STOP" state
2	(2)	BITSTRING	1	UPCCRSV4	Reserved
2	(2)	X'3'	0	UPCCEND	"*" End of UPCC
2	(2)	X'3'	0	UPCCSIZE	"UPCCEND-UPCC" Size of UPCC
2	(2)	X'D7C3C3'	0	UPCCCID	"C'UPCC'" UPCC Eye catcher
2	(2)	X'1'	0	UPCC313	"1" UPCC Version - SP313
2	(2)	X'1'	0	UPCCVERC	"UPCC313" Current Version

Table 534. Cross Reference for IFAUPCC

Name	Offset	Hex Tag
UPCC	0	
UPCCCID	2	D7C3C3
UPCCDAT	0	
UPCCEND	2	3
UPCCFLAG	7	
UPCCFUNC	1C	
UPCCHFND	7	40
UPCCHIST	7	80
UPCCID	0	
UPCCLEN	4	
UPCCNAME	C	
UPCCNEXT	8	
UPCCRSV3	4A	
UPCCRSV4	2	
UPCCSET	1	
UPCCSIZE	2	3
UPCCSTAA	2C	
UPCCSTAD	0	
UPCCSTRT	24	
UPCCVERC	2	1
UPCCVERS	6	
UPCC313	2	1

## IFAUPRM information

### IFAUPRM programming interface information

IFAUPRM is a programming interface.

### IFAUPRM heading information

<b>Common name:</b>	Usage Report Program Vendor Exit Parm List
<b>Macro ID:</b>	IFAUPRM
<b>DSECT name:</b>	UPRM
<b>Owning component:</b>	Usage Report Program (SCURP)
<b>Eye-catcher ID:</b>	UPRM Offset: '00'X Length: 4
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 2 Key: 8 Data Space: No Residency: Virtual
<b>Size:</b>	88
<b>Created by:</b>	IFAURP
<b>Pointed to by:</b>	R1->@UPRM
<b>Serialization:</b>	N/A
<b>Function:</b>	Provides parameter list between Usage Report Program IFAURP and vendor exits.

### IFAUPRM mapping

Table 535. Structure UPRM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPRM	, UPRM Mapping
0	(0)	CHARACTER	4	UPRMID	UPRM eye catcher
0	(0)	X'D7D9D4'	0	UPRMCID	"C'UPRM'" UPRM eye catcher
4	(4)	SIGNED	2	UPRMLEN	UPRM length
6	(6)	BITSTRING	1	UPRMVERS	UPRM version
6	(6)	X'1'	0	UPRM313	"1" UPRM version - JBB3313
6	(6)	X'2'	0	UPRM#0W11350	"2" UPRM version - 0W11350
6	(6)	X'3'	0	UPRM#0W27078	"3" UPRM version - 0W27078
6	(6)	X'3'	0	UPRMVERC	"UPRM#0W27078" Current UPRM version
7	(7)	BITSTRING	1	UPRMFC	Function Code
Exit function codes					
7	(7)	X'1'	0	UPRMFCIN	"1" Initialization
7	(7)	X'2'	0	UPRMFCPR	"2" Record processing

Table 535. Structure UPRM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
7	(7)	X'3'	0	UPRMFCTE	"3" Termination
8	(8)	ADDRESS	4	UPRMREC	Pointer to record
12	(C)	ADDRESS	4	UPRMVD	Pointer to Vendor Data
16	(10)	ADDRESS	4	UPRMCD	Pointer to Customer Data
20	(14)	ADDRESS	4	UPRMMCCT	Pointer to Processor Table
24	(18)	ADDRESS	4	UPRMUSID	Pointer to Sysplex ID Data
28	(1C)	ADDRESS	4	UPRMMSG	Pointer to SYSMSG DCB
32	(20)	ADDRESS	4	UPRMPRNT	Pointer to SYSPRINT DCB
36	(24)	BITSTRING	1	UPRMFLAG(0)	Flags
36	(24)	BITSTRING	1	UPRMFLG1	Flag byte 1
		1... ....		UPRMHI	"BIT0" ON if UPRMREC points to a history record
		.1.. ....		UPRM89SU	"BIT1" ON if exit accepts all SMF 89 record subtypes
37	(25)	BITSTRING	3	UPRMIVRM(0)	IFAURP version, release and modification level
37	(25)	SIGNED	1	UPRMIVER	IFAURP version
37	(25)	X'4'	0	UPRMIVCU	"4" Current IFAURP version
38	(26)	SIGNED	1	UPRMIREL	IFAURP release
38	(26)	X'1'	0	UPRMIRCU	"1" Current IFAURP release
39	(27)	SIGNED	1	UPRMIMOD	IFAURP modification level
39	(27)	X'2'	0	UPRMIMCU	"2" Current IFAURP modification level
40	(28)	ADDRESS	4	UPRMUD	User Data
44	(2C)		4	UPRMHCD	History cutoff date - records will be discarded from history file is earlier than this date. Set to be 1 year before last record found on each run. Always on 1st of month - format is packed 0cyydddF where c is century (0= 20th), yy is year within century, ddd is day in julian format, F is a constant (sign indicator).
48	(30)	CHARACTER	16	UPRMIFAV	IFAURP Version Code - See Prolog
64	(40)	CHARACTER	4	UPMRDAT	Report date in packed 0cyydddF format where c is century (0= 20th), yy is year within century, ddd is day in julian Format. F is a constant (sign indicator).
68	(44)	SIGNED	4	UPRMCT	Counter for number of times current record presented to vendor exit
72	(48)	CHARACTER	6	UPRMRSV2	Reserved
78	(4E)	BITSTRING	1	UPRMDFC	Code indicating which type 89 data fields to process
		.... .1..		UPRMDFRD	"BIT5" SMF89URD (resource units)
		.... ..1.		UPRMDFSR	"BIT6" SMF89USR (SRB) converted to SUs
		.... ...1		UPRMDFTC	"BIT7" SMF89UCT (TCB) converted to SUs
79	(4F)	SIGNED	1	UPRMDSCD	Reporting scale for usage values in powers of ten
80	(50)	ADDRESS	4	UPRMFNOT	Pointer to special footnote supplied by the exit, which is to be associated with usage values.

Table 535. Structure UPRM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
84	(54)	ADDRESS	4	UPRMMETR	Pointer to special metric description to be used to reflect the usage reported on the Statistics Report.
84	(54)	X'58'	0	UPRMEND	"*" End of UPRM
84	(54)	X'58'	0	UPRMSIZE	"UPRMEND-UPRM" Size of UPRM
Exit processing return codes					
84	(54)	X'0'	0	UPRMRCPR	"0" Process record
84	(54)	X'4'	0	UPRMRCIG	"4" Ignore record
84	(54)	X'8'	0	UPRMRCDI	"8" Process record, then disable exit
84	(54)	X'C'	0	UPRMRCAG	"12" Process record, then call exit again with same record

Table 536. Cross Reference for IFAUPRM

Name	Offset	Hex	Tag
UPRM	0		
UPRM#0W11350	6		2
UPRM#0W27078	6		3
UPRMCD	10		
UPRMCID	0	D7D9D4	
UPRMCT	44		
UPRMDFC	4E		
UPRMDFRD	4E		4
UPRMDFSR	4E		2
UPRMDFTC	4E		1
UPRMDSCD	4F		
UPRMEND	54		58
UPRMFC	7		
UPRMFCIN	7		1
UPRMFCPR	7		2
UPRMFCTE	7		3
UPRMFLAG	24		
UPRMFLG1	24		
UPRMFNOT	50		
UPRMHCD	2C		
UPRMHI	24		80
UPRMID	0		
UPRMIFAV	30		
UPRMIMCU	27		2
UPRMIMOD	27		
UPRMIRCU	26		1
UPRMIREL	26		



Table 536. Cross Reference for IFAUPRM (continued)

Name	Offset	Hex Tag
UPRMIVCU	25	4
UPRMIVER	25	
UPRMIVRM	25	
UPRMLEN	4	
UPRMMCCT	14	
UPRMMETR	54	
UPRMMSGS	1C	
UPRMPRNT	20	
UPRMRCAG	54	C
UPRMRCDI	54	8
UPRMRCIG	54	4
UPRMRCPR	54	0
UPMRDAT	40	
UPRMREC	8	
UPMRSV2	48	
UPRMSIZE	54	58
UPRMUD	28	
UPRMUSID	18	
UPRMVD	C	
UPRMVERC	6	3
UPRMVERS	6	
UPRM313	6	1
UPRM89SU	24	40

## IFAUSID information

### IFAUSID programming interface information

IFAUSID is a programming interface.

### IFAUSID heading information

<b>Common name:</b>	System Configuration Information
<b>Macro ID:</b>	IFAUSID
<b>DSECT name:</b>	USID - header USIDP - processor array USIDC - cluster array
<b>Owning component:</b>	Usage Report Program (SCURP)
<b>Eye-catcher ID:</b>	USID Offset: '00'X Length: 4

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 2  
Key: 8  
Data Space: No  
Residency: Virtual

**Size:** 64 + 50 \* USIDCMCN + 42 \* USIDPMCN

**Created by:** IFAUARTN

**Pointed to by:** UPRMUSID, USIDNEXT

**Serialization:** N/A

**Function:** Defines a processor or sysplex on which usage pricing products execute.

## IFAUSID mapping

Table 537. Structure USID

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USID	, USID Mapping
0	(0)	CHARACTER	4	USIDID	USID eye catcher
4	(4)	SIGNED	2	USIDLEN	USID length
6	(6)	BITSTRING	1	USIDVERS	USID version
7	(7)	BITSTRING	1	USIDFLAG	USID Flags
	1... ....			USIDHIST	"X'80'" On= USID from history file
	.1.. ....			USIDFNDH	"X'40'" On= Matched one sysplex statement to this USID (reset each run)
8	(8)	ADDRESS	4	USIDNEXT	Address of the next USID
12	(C)	CHARACTER	8	USIDCNID	Sysplex ID
20	(14)	ADDRESS	4	USIDPPTR	Pointer to processor table
24	(18)	SIGNED	2	USIDPCCN	Processor table count
26	(1A)	SIGNED	2	USIDPMCN	Processor table max count
28	(1C)	ADDRESS	4	USIDCPTR	Pointer to the cluster table
32	(20)	SIGNED	2	USIDCCCN	Cluster table count
34	(22)	SIGNED	2	USIDCMCN	Cluster table max count
36	(24)	CHARACTER	8	USIDPDAT	Value of PLEXDATE keyword in yyyyymmdd format.
44	(2C)	ADDRESS	4	USIDUOCC	Address of 1st UOCC
48	(30)	CHARACTER	16	USIDRSV2	Reserved
48	(30)	X'40'	0	USIDEND	"*" End of USID
48	(30)	X'40'	0	USIDSIZE	"USIDEND-USID" Size of USID

Table 538. Structure USIDP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USIDP	, Sysplex processor Table
0	(0)	BITSTRING	2	USIDTYPE	Type Number - e.g. X'9021'
2	(2)	CHARACTER	4	USIDTYPC	Type Number - e.g. '9021'
6	(6)	CHARACTER	8	USIDMOD	Model Number - e.g. '982 '

Table 538. Structure USIDP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
14	(E)	BITSTRING	3	USIDSERN	Serial Number
17	(11)	CHARACTER	7	USIDSERC	Serial Number as specified on PROCESSOR statement or keyword
24	(18)	BITSTRING	1	USIDVER	Version Number
25	(19)	BITSTRING	1	USIDPFLG	Flags
		1... ....		USIDPFND	"X'80'" On= Matched one processor keyword for this USID to this processor (reset each run)
		.1.. ....		USIDNVAL	"X'40'" On= version in this entry not valid
26	(1A)	CHARACTER	16	USIDMDL	V1-CPC model
26	(1A)	X'2A'	0	USIDPEND	"*"
26	(1A)	X'2A'	0	USIDPSZE	"USIDPEND-USIDP"

Table 539. Structure USIDC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USIDC	, Sysplex Cluster table
0	(0)	CHARACTER	6	USIDCTYP	Type Number - e.g. '9672 '
6	(6)	CHARACTER	3	USIDCMOD	Model Number - e.g. 'E06'
9	(9)	CHARACTER	12	USIDCLST	Cluster Number
21	(15)	CHARACTER	12	USIDCLSC	Printable Cluster Number
33	(21)	BITSTRING	1	USIDCFLG	Flags
		1... ....		USIDCFND	"X'80'" On= Matched one cluster keyword for this USID to this processor (reset each run)
34	(22)	CHARACTER	16	USIDCRSV	Reserved
34	(22)	X'32'	0	USIDCEND	"*"
34	(22)	X'32'	0	USIDCSZE	"USIDCEND-USIDC"
34	(22)	X'E2C9C4'	0	USIDCID	"C'USID'" USID Eye Catcher
34	(22)	X'1'	0	USID313	"1" USID Version
34	(22)	X'1'	0	USIDVERC	"USID313" Current version

Table 540. Cross Reference for IFAUSID

Name	Offset	Hex Tag
USID	0	
USIDC	0	
USIDCCCN	20	
USIDCEND	22	32
USIDCFLG	21	
USIDCFND	21	80
USIDCID	22	E2C9C4
USIDCLSC	15	
USIDCLST	9	
USIDCMCN	22	
USIDCMOD	6	

Table 540. Cross Reference for IFAUSID (continued)

Name	Offset	Hex Tag
USIDCNID	C	
USIDCPTR	1C	
USIDCRSV	22	
USIDCSZE	22	32
USIDCTYP	0	
USIDEND	30	40
USIDFLAG	7	
USIDFNDH	7	40
USIDHIST	7	80
USIDID	0	
USIDLEN	4	
USIDMDL	1A	
USIDMOD	6	
USIDNEXT	8	
USIDNVAL	19	40
USIDP	0	
USIDPCCN	18	
USIDPDAT	24	
USIDPEND	1A	2A
USIDPFLG	19	
USIDPFND	19	80
USIDPMCEN	1A	
USIDPPTR	14	
USIDPSZE	1A	2A
USIDRSV2	30	
USIDSERC	11	
USIDSERN	E	
USIDSIZE	30	40
USIDTYPC	2	
USIDTYPE	0	
USIDUOCC	2C	
USIDVER	18	
USIDVERC	22	1
USIDVERS	6	
USID313	22	1

## IFAUVCC information

### IFAUVCC programming interface information

IFAUVCC is a programming interface.

### IFAUVCC heading information

<b>Common name:</b>	Usage Report Program Vendor Data
<b>Macro ID:</b>	IFAUVCC
<b>DSECT name:</b>	UVCC
<b>Owning component:</b>	Usage Report Program (SCURP)
<b>Eye-catcher ID:</b>	UVCC Offset: '00'X Length: 4
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 2 Key: 8 Data Space: No Residency: Virtual
<b>Size:</b>	364
<b>Created by:</b>	IFAUARTN
<b>Pointed to by:</b>	UPRMVD, UVCCNEXT
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps data specified on CUSTOMER control statement of Usage Report Program, IFAURP.

### IFAUVCC mapping

Table 541. Structure UVCC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UVCC	, UVCC Mapping
0	(0)	CHARACTER	4	UVCCID	UVCC eye catcher
4	(4)	SIGNED	2	UVCCLEN	UVCC length
6	(6)	BITSTRING	1	UVCCVERS	UVCC version
7	(7)	BITSTRING	1	UVCCFLAG	Flags
		1... ....		UVCCCHIST	"X'80'" On= UVCC from history file
		.1.. ....		UVCCFNDH	"X'40'" On= Matched one vendor statement to this UVCC (reset each run)
8	(8)	ADDRESS	4	UVCCNEXT	Pointer to next UVCC
12	(C)	CHARACTER	16	UVCCPO	Product Owner Name, as it appears in field SMF89UP0
28	(1C)	CHARACTER	40	UVCCNAME	Vendor Name
68	(44)	CHARACTER	40	UVCCADD1	Vendor address line 1
108	(6C)	CHARACTER	40	UVCCADD2	Vendor address line 2

Table 541. Structure UVCC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
148	(94)	CHARACTER	40	UVCCADD3	Vendor address line 3
188	(BC)	CHARACTER	40	UVCCADD4	Vendor address line 4
228	(E4)	CHARACTER	40	UVCCADD5	Vendor address line 5
268	(10C)	CHARACTER	40	UVCCADD6	Vendor address line 6
308	(134)	ADDRESS	4	UVCCUD	Vendor user data - copy of UPRMUD
312	(138)	ADDRESS	4	UVCCCEP	Vendor Exit Entry Point
316	(13C)	CHARACTER	8	UVCCEN	Vendor Exit name
324	(144)	CHARACTER	8	UVCCDD	Vendor PRINTDD name
332	(14C)	CHARACTER	8	UVCCNUM	Customer number
340	(154)	CHARACTER	8	UVCCEXTL	Exit level designator
348	(15C)	CHARACTER	16	UVCCRSV1	Reserved
348	(15C)	X'16C'	0	UVCCEND	"*" End of UVCC
348	(15C)	X'16C'	0	UVCCSIZE	"UVCCEND-UVCC" Size of UVCC
348	(15C)	X'E5C3C3'	0	UVCCCID	"C'UVCC'" UVCC Eye Catcher
348	(15C)	X'1'	0	UVCC313	"1" UVCC Version
348	(15C)	X'1'	0	UVCCVERC	"UVCC313" Current version

Table 542. Cross Reference for IFAUVCC

Name	Offset	Hex	Tag
UVCC	0		
UVCCADD1	44		
UVCCADD2	6C		
UVCCADD3	94		
UVCCADD4	BC		
UVCCADD5	E4		
UVCCADD6	10C		
UVCCCID	15C	E5C3C3	
UVCCDD	144		
UVCCEN	13C		
UVCCEND	15C		16C
UVCCCEP	138		
UVCCEXTL	154		
UVCCFLAG	7		
UVCCFNDH	7		40
UVCCCHIST	7		80
UVCCID	0		
UVCCLEN	4		
UVCCNAME	1C		
UVCCNEXT	8		
UVCCNUM	14C		
UVCCPO	C		

Table 542. Cross Reference for IFAUVCC (continued)

Name	Offset	Hex Tag
UVCCRSV1	15C	
UVCCSIZE	15C	16C
UVCCUD	134	
UVCCVERC	15C	1
UVCCVERS	6	
UVCC313	15C	1

## IFAU29LM information

### IFAU29LM programming interface information

IFAU29LM is a programming interface.

### IFAU29LM heading information

<b>Common name:</b>	Parmlist mapping to IEFU29L exit routine
<b>Macro ID:</b>	IFAU29LM
<b>DSECT name:</b>	U29L_PARM
<b>Owning component:</b>	System Management Facilities (SC100)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 229 Key: zero Residency: any
<b>Size:</b>	Variable U29L_PARM -- X'001C' bytes KEY and RESIDENCY.
<b>Created by:</b>	IFALSMOD and passed as parameter list to IEFU29L
<b>Pointed to by:</b>	Register 1 on entry to IFAU29L exit
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the data provided to the IEFU29L exit routine.

### IFAU29LM mapping

Table 543. Structure U29L\_PARM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	U29L_PARM	
0	(0)	SIGNED	2	U29L_LSNAME_LENGTH	
2	(2)	CHARACTER	26	U29L_LSNAME	
2	(2)	X'1C'	0	U29L_PARM_LEN	"*-U29L_PARM"

# IFAWICCB information

## IFAWICCB programming interface information

IFAWICCB is a programming interface.

## IFAWICCB heading information

<b>Common name:</b>	SMF Workload Interaction Correlator (WIC) constants and exploiter exit control blocks
<b>Macro ID:</b>	IFAWICCB
<b>DSECT name:</b>	WICPARM
<b>Owning component:</b>	System Management Facilities (SC100)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: ESQA
<b>Size:</b>	Size of some DSECTs may vary from release to release. WicWR_AggBucketParmList -- X'0018' bytes WicWR_AggBucket -- X'0002' bytes WicWR_ExcBucket -- X'000A' bytes Wic_Warning_Rsn -- X'0004' bytes WicEnf -- X'0010' bytes WicEnfQual -- X'0004' bytes WicNB_ParmList -- X'0030' bytes WicCB_ParmList -- X'0014' bytes WicWR_ParmList -- X'0068' bytes WicParm -- X'0030' bytes
<b>Created by:</b>	SMF (IFAHFTSK)
<b>Pointed to by:</b>	R1 passed to WIC exploiter exits
<b>Serialization:</b>	None.
<b>Function:</b>	This macro defines data structures for the SMF WIC exploiter exit, parameters and constants for the WIC exit services, and constants for the IFAWIC service.

## IFAWICCB mapping

Table 544. Structure WICPARM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICPARM	
0	(0)	SIGNED	2	WICPARM_VERSION	Version of WicParm
2	(2)	SIGNED	2	WICPARM_LENGTH	Length of WicParm
4	(4)	SIGNED	2	WICPARM_SUBTYPE	Subtype number
6	(6)	SIGNED	2	WICPARM_REQUEST	Request for the WIC exploiter exit. If called with an unrecognized request number, the exit routine should return without any processing.
8	(8)	ADDRESS	8	WICPARM_DYNAREAPTR	Dynamic area for WIC exploiter exit. Must be accessed in amode 64



Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	SIGNED	4	WICPARM_DYNAREALEN	Length of storage pointed to by WicParm_DynAreaPtr. At least 1M in size.
20	(14)	CHARACTER	4		Reserved for alignment
<p>Address of WIC exit services            Use these addresses to perform "common" WIC exit services.            AMODE: 64-bit            ASC Mode: Primary            Input Registers: GR0 Irrelevant                              GR1 Address of the parameter list                                              as shown below                              GR2-GR12 Irrelevant                              GR13 Address of 144 byte save area                              GR14 Return address                              GR15 Irrelevant            Input Parameter List: Either WicNB_Parmlist,                                      WicCB_Parmlist, or WicWR_Parmlist.                                      Pointed to by GR1, each WIC exit                                      service has three parameters as                                      shown.</p> <pre> 0 63 +-----+   Double Word 1 Address of WIC exit service parameter     list (see Wic _ParmList for the given WIC exit     service)   +-----+   Double Word 2 Address of Return Code   +-----+   Double Word 3 Address of Reason Code   +-----+ Output Registers: GR0 Used by WIC exit services                   GR1-GR14 Unchanged                   GR15 Used by WIC exit services Recovery Operation: Provided by the caller </pre>					
24	(18)	ADDRESS	8	WICPARM_WICSRV_GETNEXTBUFFERPTR	Address of the get next buffer WIC exit service IFAWGetNextBuffer
32	(20)	ADDRESS	8	WICPARM_WICSRV_CLEARBUFFERPTR	Address of the clear buffer WIC exit service IFAWClearBuffer
40	(28)	ADDRESS	8	WICPARM_WICSRV_WRITESMF98PTR	Address of the build and write SMF98.x record WIC exit service IFAWBuildAndWriteSMF98
40	(28)	X'1'	0	WICPARM_REQPRIME	"1" Request for the WIC exploiter exit to prime. Prepare for writing a record on the next HFTSINTVL by clearing the WIC instrumentation buffer data. Do not produce a record this interval.
40	(28)	X'2'	0	WICPARM_REQWRITERECORD	"2" Request for the WIC exploiter exit to write an SMF 98 record for it's subtype.
40	(28)	X'1'	0	WICPARM_KVERSIONFIRST	"1"
40	(28)	X'1'	0	WICPARM_KVERSIONCURRENT	"1"
Miscellaneous constants					
40	(28)	BITSTRING	0	WIC_RSN_CODEMASK	"X'0000FFFF'" Mask to locate the non-diagnostic portion of the reason code
40	(28)	X'10'	0	WIC_KMAX4KPAGES	"16" Max allowed value for BUFFER4KPAGES
40	(28)	X'2000'	0	WIC_KDYNAMICAREALENGTH	"8192" Size of common dynamic storage (SP 245) allocated for the use of WIC trend exploiter exit routines. This area is pointed to by R0 on entry to the WIC exploiter exit

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	X'2000'	0	WIC_KFIRSTTESTSUBTYPE	"8192" First test subtype number
40	(28)	X'2007'	0	WIC_KLASTTESTSUBTYPE	"8199" Last test subtype number
IFAWIC Return and Reason Code definitions					
	....	....		IFAWIC_RC_SUCCESS	"X'00000000'" Meaning: IFAWIC request successful. For REQUEST=REGISTER a BufferPtr has been provided to the current primary address. If an ExitVersion has been specified, and this is the first REQUEST=REGISTER on the system for the input subtype, or the input ExitVersion is larger than the current ExitVersion the input subtype, the ExitRoutine has been registered, and the system will switch to calling the new exit routine at the next WIC interval. The system issues ENF 85 signals to inform IFAWIC callers to start or stop writing instrumentation data to their instrumentation buffer. See macro IFAWICCB for additional information. For REQUEST=DEREGISTER the buffer is made unavailable to the current primary address. By invoking REQUEST=DEREGISTER, the program certifies that the exploiter has stopped instrumenting into its buffer. The program does not have to certify its WIC exit is not accessing the buffer. Once REQUEST=DEREGISTER is invoked, the system is responsible for preventing the WIC exit from accessing the the buffer If there are no more address spaces registered for the input subtype, the system will stop calling the exit routine. Action: For REQUEST=REGISTER, the program should begin instrumenting. For REQUEST=DEREGISTER, none.

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		IFAWIC_RC_WARNING	"X'00000004'" Meaning: IFAWIC request completed with a warning. The high half word of the reason code may contain indications of other warnings that have occurred besides the reason code portion in the lower half. See Wic_Warning_Rsn in IFAWICCB for a mapping of this area. For REQUEST=REGISTER, a BufferPtr has been provided to the current primary address. If an ExitVersion has been specified, and this is the first REQUEST=REGISTER on the system for the input subtype, or the input ExitVersion is larger than the current ExitVersion the input subtype, the ExitRoutine has been registered, and the system will switch to calling the new exit routine at the next WIC interval. For REQUEST=Deregister, the buffer is made unavailable to the current primary address. If there are no more address spaces registered for the input subtype, the system will stop calling the exit routine. Action: Refer to the action provided with the specific reason code. For REQUEST=REGISTER, the program should check the high half of the reason code for any conditions indicating the WIC services are not fully available by testing for any bits being on in the first byte using the IFAWICCB field Wic_NotFullyAvail_LowHighMask. When no bits in the first byte of the reason code are on, the program should start writing instrumentation data to the instrumentation buffer because the program's WIC exit will be called at the next WIC interval. When any bit in the first byte of the reason code is on, the program should not start writing instrumentation data to the instrumentation buffer because the WIC exit will not be called at the next WIC interval. The system issues ENF 85 signals to inform IFAWIC callers to start or stop writing instrumentation data to their instrumentation buffer. See macro IFAWICCB for additional information. For REQUEST=Deregister, none.
40		(28) BITSTRING	0	IFAWIC_RSN_BUFFER4KPAGESSMALLER	

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"X'00000401'" Meaning: A smaller Buffer4kPages value was requested than the value specified on a previous REQUEST=REGISTER for the same subtype. The system reserves the requested buffer size for this address space. Action: It is desirable for the Buffer4kPages to be the same for all register requests for the input subtype, however, the system will allow the value to change. When specifying different Buffer4kPages values, it is up to the caller to remember how much data in each address space WIC instrumentation buffer is available for the WIC exit routine to use. Also, keep in mind when aggregating data that new data fields may not be available for aggregation from older program versions. Record data in the WIC instrumentation buffer to identify to the WIC ExitRoutine what data it should access and what fields it can aggregate.
40	(28)	BITSTRING	0	IFAWIC_RSN_BUFFER4KPAGESLARGER	
					"X'00000402'" Meaning: A larger Buffer4kPages value was requested than the value specified on a previous REQUEST=REGISTER for the same subtype. The system reserves the requested buffer size for this address space. Action: It is desirable for the Buffer4kPages to be the same for all register requests for the input subtype, however, the system will allow the value to change. When specifying different Buffer4kPages values, it is up to the caller to remember how much data in each address space WIC instrumentation buffer is available for the WIC exit routine to use. Also, keep in mind when aggregating data that new data fields may not be available for aggregation from older program versions. Record data in the WIC instrumentation buffer to identify to the WIC ExitRoutine what data it should access and what fields it can aggregate.
40	(28)	BITSTRING	0	IFAWIC_RSN_ALREADYREGISTERED	
					"X'00000403'" Meaning: A REQUEST=REGISTER was requested from an address space for a subtype that was already registered. Action: none needed.
40	(28)	BITSTRING	0	IFAWIC_RSN_NOTREGISTERED	
					"X'00000404'" Meaning: A REQUEST=DEREGISTER was requested from an address space for a subtype that was not currently registered. Action: none needed.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITVERSIONIGNORED	
					"X'00000405'" Meaning: A REQUEST=REGISTER specified an ExitVersion that was less than the current ExitVersion. The ExitVersion and ExitRoutine parameters are ignored and the system continues using the current highest versioned exit routine. Action: none needed.

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	BITSTRING	0	IFAWIC_RSN_WICFEATURENOTENABLED	"X'00000481" Meaning: The WorkloadIntCorr feature was not enabled to product registry. Action: Wait for ENF 85 signal and verify the WicEnf bit WicEnf_InstrumentationRequested is on before writing to the instrumentation buffer.
40	(28)	BITSTRING	0	IFAWIC_RSN_SUBTYPENOTCOLLECTED	"X'00000482" Meaning: SMF has not been configured to collect the input SMF 98 subtype record. Action: Wait for ENF85 signal and verify the WicEnf bit WicEnf_InstrumentationRequested is on before writing to the instrumentation buffer.
	.... 1...			IFAWIC_RC_USERERROR	"X'00000008" Meaning: The IFAWIC request specified parameters that are not valid or the request is issued in an user-controllable environment that is not valid. The IFAWIC service did not complete successfully. For REQUEST=REGISTER, no WIC instrumentation buffer was provided to the caller. Action: Refer to the action provided with the specific reason code.
40	(28)	BITSTRING	0	IFAWIC_RSN_PARMLISTALET	"X'00000801" Meaning: Unable to use ALET of the IFAWIC parameter list. Action: Provide a valid ALET for the parameter list. The access register might not have been set up correctly.
40	(28)	BITSTRING	0	IFAWIC_RSN_BADVERSION	"X'00000802" Meaning: The provided PLISTVER is not valid. This suggests the parameter list used to call IFAWIC was overlaid, or was not generated by the IFAWIC macro. Action: Check for possible storage overlay of the parameter list. Use the IFAWIC service to produce the parameter list.
40	(28)	BITSTRING	0	IFAWIC_RSN_RESERVEDNOT0	"X'00000803" Meaning: The parameter list contains non-0 input in reserved fields. This suggests the parameter list used to call IFAWIC was overlaid, or was not generated by the IFAWIC macro. Action: Check for possible storage overlay of the parameter list. Use the IFAWIC service to produce the parameter list.
40	(28)	BITSTRING	0	IFAWIC_RSN_BADREQUESTTYPE	"X'00000804" Meaning: The request type is not valid. This suggests the parameter list used to call IFAWIC was overlaid, or was not generated by the IFAWIC macro. Action: Check for possible storage overlay of the parameter list. Use the IFAWIC service to produce the parameter list.
40	(28)	BITSTRING	0	IFAWIC_RSN_BADBUFFERKEY	"X'00000805" Meaning: The buffer key type is not valid. This suggests the parameter list used to call IFAWIC was overlaid, or was not generated by the IFAWIC macro. Action: Check for possible storage overlay of the parameter list. Use the IFAWIC service to produce the parameter list.

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
40	(28)	BITSTRING	0	IFAWIC_RSN_PARMLISTFETCH	"X'00000807'" Meaning: An error was encountered when fetching the supplied parameter list. Action: Call IFAWIC with a parameter list properly addressable.
40	(28)	BITSTRING	0	IFAWIC_RSN_PARMLISTWRITE	"X'00000808'" Meaning: An error was encountered when writing to the supplied parameter list. Action: Call IFAWIC with a parameter list properly addressable and able to be written to.
40	(28)	BITSTRING	0	IFAWIC_RSN_NOTENABLED	"X'00000810'" Meaning: The IFAWIC caller was not enabled. Action: Call IFAWIC only when enabled.
40	(28)	BITSTRING	0	IFAWIC_RSN_LOCKED	"X'00000811'" Meaning: The IFAWIC caller was locked. Action: Call IFAWIC without holding locks.
40	(28)	BITSTRING	0	IFAWIC_RSN_HOMENOTPRIMARY	"X'00000812'" Meaning: The IFAWIC caller's primary home space was not equal to the caller's primary address space. Action: Call IFAWIC when home equals primary address space.
40	(28)	BITSTRING	0	IFAWIC_RSN_CALLERFRR	"X'00000813'" Meaning: The task mode IFAWIC REQUEST=REGISTER caller had FRR recovery established. Action: Call IFAWIC in task mode without FRRs established.
40	(28)	BITSTRING	0	IFAWIC_RSN_NOTAUTHORIZED	"X'00000814'" Meaning: The IFAWIC caller is not authorized. Action: Call IFAWIC only when authorized.
40	(28)	BITSTRING	0	IFAWIC_RSN_SUBTYPEINPUT	"X'00000820'" Meaning: The provided SUBTYPE is not supported. Action: Supply the IBM provided program subtype.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITVERSIONZERO	"X'00000821'" Meaning: The ExitVersion input must not be 0. Action: Specify an ExitVersion that is not 0.
40	(28)	BITSTRING	0	IFAWIC_RSN_BUFFER4KPAGESZERO	"X'00000822'" Meaning: The Buffer4kPages must not be 0. Action: Specify Buffer4kPages that is not 0.
40	(28)	BITSTRING	0	IFAWIC_RSN_BUFFER4KPAGESTOOLARGE	"X'00000823'" Meaning: The Buffer4kPages input must be less than or equal to 16. Action: Specify Buffer4kPages as less than or equal to 16.
40	(28)	BITSTRING	0	IFAWIC_RSN_BUFFERKEYMISMATCH	"X'00000824'" Meaning: A previous REQUEST=REGISTER requested and received a buffer for a BUFFERKEY value that was different than the BUFFERKEY specified on this request. Action: Update the program to request the same BUFFERKEY for each call to IFAWIC, even across different program versions.
40	(28)	BITSTRING	0	IFAWIC_RSN_SRBMODE	"X'00000825'" Meaning: IFAWIC was issued in SRB mode Action: Do not issue IFAWIC in SRB mode
40	(28)	BITSTRING	0	IFAWIC_RSN_SAMEVEREXITROUTINEMISMATCH	

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					"X'00000830'" Meaning: A ExitRoutine and ExitVersion was specified such that the ExitVersion is the same as a previous specification, however, the ExitRoutine is different. Action: Specify the same ExitRoutine to correspond with the same ExitVersion. If the program introduces a new exit routine, the ExitVersion must be incremented.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNNOTFOUND	"X'00000831'" Meaning: The exit routine could not be found. Action: Ensure the exit routine is located in either the invoking program's joblib, steplib, tasklib, in the system's LNKLIST concatenation or in LPA.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNNOTINAPFLIB	"X'00000832'" Meaning: IFAWIC was unable to load the provided exit routine because did not reside in an APF authorized library. The "xxxx" portion of the reason code contains an informational code as documented with ABEND 306 reasons. No abend was generated. Action: Refer to "MVS System Codes", sections "System completion codes", "306", with the "xxxx" portion of the reason code to see what action is needed to resolve the condition. Ensure the exit routine resides in an APF authorized library and is re-entrant.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNAMODE24	"X'00000833'" Meaning: The ExitRoutine must not be in AMODE 24. Action: Provide an exit routine with an AMODE of 31 or 64.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNNOTREENTRANT	"X'00000834'" Meaning: The ExitRoutine must be re-entrant. Action: Provide an exit routine that is linked as re-entrant.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNNAMENOTUNIQUE	"X'00000835'" Meaning: Another subtype is using the same exit routine name. The exit routine name must be unique per subtype. Action: Provide a unique exit routine name.
		.... 11..		IFAWIC_RC_ENVERROR	"X'0000000C'" Meaning: Environmental error The IFAWIC service did not complete successfully. For REQUEST=REGISTER, no WIC instrumentation buffer was provided to the caller. Action: Refer to the action provided with the specific reason code.
40	(28)	BITSTRING	0	IFAWIC_RSN_SYSTEMNOTREADY	"X'00000C01'" Meaning: IFAWIC was issued before the system is ready to start processing requests. Action: Wait for the system to be ready to accept IFAWIC requests and re-issue the IFAWIC request.
40	(28)	BITSTRING	0	IFAWIC_RSN_UNSUPPORTEDMACHINE	"X'00000C02'" Meaning: IFAWIC was issued from an unsupported machine. WIC requires an IBM z14 or later hardware. Action: Issue IFAWIC on a supported machine.

Table 544. Structure WICPARM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
40	(28)	BITSTRING	0	IFAWIC_RSN_ENVNOEXIT	"X'00000C03'" Meaning: IFAWIC REQUEST=REGISTER requests omitting ExitVersion and ExitRoutine, require a WIC exit routine to have been already established by a previous IFAWIC REQUEST=REGISTER call specifying the ExitVersion and ExitRoutine parameters. Action: Specify ExitVersion and ExitRoutine or ensure an IFAWIC REQUEST=REGISTER call has already completed specifying ExitVersion and ExitRoutine before issuing IFAWIC REQUEST=REGISTER.
40	(28)	BITSTRING	0	IFAWIC_RSN_SMFNOWICSPECIFIED	"X'00000C04'" Meaning: SMF parameters specified NOWIC which prevents programs from issuing IFAWIC REQUEST=REGISTER. Action: Accept that WIC services will be unavailable for the program, or choose to handle WIC registration dynamically. If the program can support dynamic WIC registration, wait for ENF 85 signal and check the WicEnf bit WicEnf_RegisterIsAvailable. When WicEnf_RegisterIsAvailable is on, The ENF listener exit can cause a task to wake up to re-issue IFAWIC REQUEST=REGISTER for the program. The system issues ENF 85 signals to inform IFAWIC callers that IFAWIC Register is available when SMF parameter WIC is specified. See macro IFAWICCB for additional information.
40	(28)	BITSTRING	0	IFAWIC_RSN_EXITRTNNOSTORAGE	"X'00000C10'" Meaning: There was not sufficient storage for IFAWIC to process the exit routine. Action: Contact your system programmer. there is a shortage of common storage.
40	(28)	BITSTRING	0	IFAWIC_RSN_UNEXPECTEDLOADERROR	"X'00000C11'" Meaning: IFAWIC encountered errors trying to load the provided exit routine. The "xxxx" portion of the reason code contains a code from the load service of what would have been the ABEND code. Noabend was generated. Action: Alert the system programmer. Refer to "MVS System Codes", sections "System completion codes", with the "xxxx" portion as the abend code to see what action is needed to resolve the condition. This may be accompanied with system log messages with the CSV prefix.
		...1 ....		IFAWIC_RC_COMPERROR	"X'00000010'" Meaning: Unexpected failure. Action: Refer to the action provided with the specific reason code.
40	(28)	BITSTRING	0	IFAWIC_RSN_COMPERROR	"X'00001001'" Meaning: Unexpected failure. The state of the request is unpredictable. Action: Contact your system programmer to report the problem to IBM service
40	(28)	X'30'	0	WICPARM_LEN	"*-WicParm"



Table 545. Structure WIC\_WARNING\_RSN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WIC_WARNING_RSN	
0	(0)	BITSTRING	2	WIC_WARNING_FLAGS	
0	(0)	BITSTRING	2	WIC_WARNING_FLAGSREGISTER	
0	(0)	BITSTRING	1	WIC_WARNING_WICNOTFULLYAVAIL	Flags indicating the WIC service is not fully available for processing. For IFAWIC REQUEST=REGISTER, when the return code is IFAWIC_Rc_Warning and bits 0-7 of the reason code contain any bit on, the WIC services are not fully available. The program should not write instrumentation data to its instrumentation buffer because the program's WIC exit routine is not likely to be called.
Bit definitions:					
		1... ....		WIC_WARNING_WICFEATURENOTENABLED	"X'80'" The WorkloadIntCorr product is not part of the product enablement policy, see IFAWIC_Rsn_WicFeatureNotEnabled
		.1.. ....		WIC_WARNING_SUBTYPENOTCOLLECTED	"X'40'" SMF parameters did not specify WIC, see IFAWIC_Rsn_SubtypeNotCollected
1	(1)	BITSTRING	1	WIC_WARNING_FLAGSREGISTERGENERAL	General flags for register requests
Bit definitions:					
		1... ....		WIC_WARNING_ALREADYREGISTERED	"X'80'" See IFAWIC_Rsn_AlreadyRegistered
		.1.. ....		WIC_WARNING_BUFFER4KPAGESDIFFERENT	"X'40'" A buffer 4k Pages larger or smaller than a previous register was detected, see IFA WIC_Rsn_Buffer4kPagesSmaller or IFAWIC_Rsn_Buffer4kPagesLarger
		..1. ....		WIC_WARNING_EXITVERSIONIGNORED	"X'20'" Exit version was less than current, see IFAWIC_Rsn_ExitVersionIgnored
0	(0)	BITSTRING	2	WIC_WARNING_FLAGSDEREGISTER	
0	(0)	BITSTRING	1	WIC_WARNING_FLAGSDEREGISTERBYTE1	
0	(0)	BITSTRING	1		Reserved for future use
1	(1)	BITSTRING	1	WIC_WARNING_FLAGSDEREGISTERGENERAL	
Bit definitions:					
		1... ....		WIC_WARNING_NOTREGISTERED	"X'80'" See IFAWIC_Rsn_NotRegistered
2	(2)	SIGNED	2	WIC_WARNING_CODE	
2	(2)	BITSTRING	0	WIC_NOTFULLYAVAIL_LOWHIGHMASK	

Table 545. Structure WIC\_WARNING\_RSN (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'FF00'" For IFAWIC REQUEST=REGISTER, when the return code is IFAWIC_Rc_Warning and bits 0-7 of the reason code contain any bit on, the WIC services are not fully available. The program should not write instrumentation data to its instrumentation buffer because the program's WIC exit routine is not likely to be called. Assembler programs can use 'TMLH 0,Wic_NotFullyAvail_LowH ighMask' to check for this condition when the return code is IFAWIC_Rc_Warning
2	(2) X'4'		0	WIC_WARNING_RSN_LEN	"*-Wic_Warning_Rsn"

Table 546. Structure WICENFQUAL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICENFQUAL	
0	(0)	BITSTRING	1	WICENFQUAL_CODE	Code for ENF85 request
1	(1)	CHARACTER	1		reserved for future use
2	(2)	SIGNED	2	WICENFQUAL_SUBTYPE	Subtype number
WIC ENF Qual Codes					
2	(2) X'1'		0	WICENF_CODE_INSTRUMENTATIONCHANGE	"1" This ENF is issued when SMF requests a change in instrumentation status for the WIC exploiter. The listener should check the WicENF parameter list field WicEnf_InstrumentationRequested to verify if the program should start or stop instrumenting. This condition occurs when SMF noticed a system change that indicates that affects whether the WIC exit routine will or will not be called.
2	(2) X'2'		0	WICENF_CODE_REGISTERAVAILABLE	"2" This ENF was issued when the SMF WIC parameter was specified and IFAWIC REQUEST=REGISTER may succeed. Check WicEnf parameter list field WicEnf_RegisterIsAvailable to verify the most current status. If possible, alert a task to issue IFAWIC REQUEST=REGISTER to begin using WIC services.
2	(2) X'4'		0	WICENFQUAL_LEN	"*-WicEnfQual"

Table 547. Structure WICENF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICENF	
0	(0)	CHARACTER	8	WICENF_EYE	'WICENF '
8	(8)	SIGNED	2	WICENF_VERSION	Version of WicEnf
10	(A)	SIGNED	2	WICENF_SUBTYPE	Subtype number
12	(C)	BITSTRING	1	WICENF_FLAGS	Status Flags
Bit definitions:					

Table 547. Structure WICENF (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		WICENF_INSTRUMENTATIONREQUESTED	"X'80'" When on, instrumentation is requested for this subtype. When off, instrumentation is not requested for this subtype.
		.1.. ....		WICENF_REGISTERISAVAILABLE	"X'40'" When on, SMF parameter WIC is specified and IFAWIC REQUEST=REGISTER is available to be re-tried. When off, SMF parameter NOWIC is specified and IFAWIC REQUEST=REGISTER is likely to fail with return code IFAWIC_Rc_EnvError reason code IFAWIC_Rsn_SMFNOWICSpecified
		..1. ....		WICENF_EXITADDEROR	"X'20'" When on, SMF encountered an error adding the exit for the subtype. This is likely because an exit of the same name was added to WIC processing for another subtype. Specify unique names for exit routines for each subtype. When this bit is on, WicEnf_InstrumentationRequeste d is off
13	(D)	CHARACTER	3		Reserved for future use
13	(D)	X'C9C3C5'	0	WICENF_EYECONST_0T03	"C'WICE'" This is the first 4-byte segment of an 8-byte constant. Eye catcher for WicEnf
13	(D)	X'C64040'	0	WICENF_EYECONST_4T07	"C'NF '" This is the second 4-byte segment of an 8-byte constant. Eye catcher for WicEnf
13	(D)	X'1'	0	WICENF_VERCONST	"1" Current version for WicEnf
13	(D)	X'1'	0	WICENF_VER1CONST	"1" Version 1 constant
13	(D)	X'10'	0	WICENF_LEN	"*-WicEnf"

Table 548. Structure WICNB\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICNB_PARMLIST	Parameter list for the GetNextBuffer Service
0	(0)	SIGNED	2	WICNB_VERSION	Version identification
2	(2)	SIGNED	2	WICNB_INOUTASID	Address space ID. Caller must initialize this to zero for the initial invocation of the GetNextBuffer service. When the GetNextBuffer service completes with a return code of WicSrv_Rc_Success this will contain the address space id for the WIC buffer returned in WicNB_outBuffer@. For subsequent invocations of the GetNextBuffer service the caller should not change the content of WicNB_inoutAsid in order to obtain the next WIC buffer. When there are no remaining buffers, the service completes with an appropriate return and reason code.
4	(4)	CHARACTER	20	WICNB_RESERVED1	Reserved
24	(18)	CHARACTER	24	WICNB_OUTAREA	Output area
24	(18)	CHARACTER	16	WICNB_ASINFO	Address information
24	(18)	CHARACTER	8	WICNB_OUTJOBNAME	Jobname for Address Space Id (WicNB_inoutAsid)
32	(20)	CHARACTER	8	WICNB_OUTJOBPRIORITYAREA	Job priority area

Table 548. Structure WICNB\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	SIGNED	2	WICNB_OUTJOBPRIORITYBUCKET	Priority bucket - describes relative priority of the address space. When: 1 - SVT_kHiPriorityBucketIndex 2 - SVT_kMedPriorityBucketIndex 3 - SVT_kLowPriorityBucketIndex 4 - SVT_kDiscPriorityBucketIndex See IHASVT for description of the above constants
34	(22)	SIGNED	2	WICNB_OUTJOBSIZEBUCKET	Sub buckets for each of the priority buckets for the address space.
40	(28)	ADDRESS	8	WICNB_OUTBUFFERADDR	Starting address of the WIC buffer for this ASID (WicNB_inoutASID)

## Constants for GetNextBuffer Service

40	(28)	X'1'	0	WICNB_KVER	"1" Current version
40	(28)	X'1'	0	WICNB_KMAXVER	"1"
40	(28)	X'1'	0	WICNB_KVER1	"1"
40	(28)	X'1'	0	WICNB_#VER	"1" Current version
40	(28)	X'1'	0	WICNB_#MAXVER	"1"
40	(28)	X'1'	0	WICNB_#VER1	"1"
40	(28)	X'0'	0	WIC_KPROCCLASSINDEX_CP	"0" Local constant for CP proc class index to avoid having to include IHAPSA
40	(28)	X'2'	0	WIC_KPROCCLASSINDEX_ZIIP	"2" Local constant for zIIP proc class index to avoid having to include IHAPSA
40	(28)	X'30'	0	WICNB_PARMLIST_LEN	"*-WicNB_ParmList"

Table 549. Structure WICCB\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICCB_PARMLIST	Input parameter list for the Clear Buffer Service
0	(0)	SIGNED	2	WICCB_VERSION	Version identification
2	(2)	SIGNED	2	WICCB_INASID	Address space id
4	(4)	CHARACTER	4	WICCB_RESERVED1	Reserved for alignment
8	(8)	ADDRESS	8	WICCB_INSTARTADDRBUFTOCLEAR	Address within the WIC buffer to clear for the subtype and the given address space id (WicCB_inAsid). The WIC buffer address is obtained by calling the get next buffer service
16	(10)	SIGNED	4	WICCB_INBUFLENTOCLEAR	Length of the WIC buffer to be cleared from the starting WIC buffer address as specified by WicCB_inStartAddrBufToClear

## Constants for ClearBuffer Service

16	(10)	X'1'	0	WICCB_KVER	"1" Current version
16	(10)	X'1'	0	WICCB_KMAXVER	"1"
16	(10)	X'1'	0	WICCB_KVER1	"1"
16	(10)	X'1'	0	WICCB_#VER	"1" Current version
16	(10)	X'1'	0	WICCB_#MAXVER	"1"
16	(10)	X'1'	0	WICCB_#VER1	"1"

Table 549. Structure WICCB\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	X'14'	0	WICCB_PARMLIST_LEN	"*-WicCB_ParmList"

Table 550. Structure WICWR\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	WICWR_PARMLIST	Input parameter list for the Write SMF 98.x build and write service
0	(0)	SIGNED	2	WICWR_VERSION	Parameter list version
2	(2)	CHARACTER	4	WICWR_RSVD02	Reserved for alignment
6	(6)	BITSTRING	1	WICWR_FLAG	Build and write SMF 98.x Record flags

Bit definitions:

		1... ....		WICWR_FLAGEXCJOBSUNIQUEBYJOBSIZE	"X'80'" This controls whether multiple instances of the same job are compressed into a single instance always (off, default) or per job size (on). When off, the same job in any exception job bucket entry (WicWR_ExcBucket_Data) is compressed into a single exception job list entry because each job instance contains the same data (WicWR_ExcBucket_Data). When on, exception job bucket entries (WicWR_ExcBucket) for the same job but with a different job size is unique, so it is added as an exception job list entry. When on, the same job in the same job size is compressed to a single entry because it contains the same data (WicWR_ExcBucket_Data). This bit may be set on when using either the default job sizes (when WicWR_CustomJobSizeEntries=0) or custom job sizes (when WicWR_CustomJobSizeEntries!=0). Setting this on requires no zIIP aggregate buckets (WicWR_AggBucket) and no zIIP exception buckets (WicWR_ExcBucket).
		.111 1111		WICWR_FLAGRSVD	"X'7F'" Reserved flags, must be 0
7	(7)	BITSTRING	1	WICWR_CUSTOMJOBSIZEENTRIES	This controls the job size entries and attributes. When zero, the build and write SMF 98.x record service applies the default job size bucket entries (WicWR_kJobSizeDefNum) and bucket attributes (WicWR_kJobSize*) When non-zero, the required default job size bucket entries (WicWR_kJobSizeDefNumReq) and attributes (WicWR_kJobSizeAll) are applied, and the remaining job size bucket entries WicWR_kJobSizeLarge (1) - WicWR_kJobSizeTiny (4) are replaced with exploiter defined bucket entries from 1 to WicWR_CustomJobSizeEntries with exploiter defined attributes. Job size bucket entry WicWR_kJobSizeAll (0) is not replacable, so if it is not desired, set its bucket entry contents to binary zeros to prevent it from being written to the SMF 98 record. WicWR_kCustomJobSizeEntriesMax is the maximum value that can be specified for WicWR_CustomJobSizeEntries.

Table 550. Structure WICWR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
<p>SMF 98 Record subtype information parameter list All SMF 98 subtype records (SMF 98.x) MUST be compatibly changed. The WicWR_ReleaseIndex (RI), WicWR_WithinReleaseIndex (WRI), and WicWR_PrototypeIndex (PI) form a macro version that is of the form RI.WRI.PI. Each SMF 98 subtype (SMF 98.x) has its own independent macro version. For products with multiple levels installed, the macro version ensures the latest mapping macro is used to analyze the SMF 98 subtype records. IBM expects all exploiters to follow these rules for setting RI, WRI, and PI: 1. For any shipped support, PI must be zero. 2. For the first delivery of an SMF 98 subtype, the indices MUST be set to RI=1, WRI=0, PI=0 across all levels. 3. When adding new data to an existing SMF 98 subtype record: a. For a new release or version RI is updated to RI+1. WRVI and PI should both be set to zero. b. For an existing release and version, RI is unchanged, WRVI is updated to WRI+1, and PI is set to 0. 4. For prototype testing (e.g. ++APAR, developer supplied link edit) that may or may not be delivered, RI and WRVI are to remain unchanged. PI is to be set to a non-zero value (e.g. PI=1). This mapping macro can be used to analyze SMF98.x records with matching RI.WRI.PI and earlier compatible records where PI=0 with the same or lower RI and/or WRI settings. Different PI values for the same RI and WRVI values are treated as incompatible test changes. Note: The WicWR_SubtypeInfo is a one to one mapping of SMF98_SubtypeInfo in IHAHR098. Changes to this</p>					
<p>WicWR_SubtypeInfo will require the same changes to the SMF98_SubtypeInfo mapping.</p>					
8	(8)	CHARACTER	24	WICWR_SUBTYPEINFO	SMF 98.x subtype information parameter list
8	(8)	SIGNED	2	WICWR_RELEASEINDEX	The current release version index value
10	(A)	SIGNED	2	WICWR_WITHINRELEASEINDEX	The current within release index value
12	(C)	SIGNED	2	WICWR_PROTOTYPEINDEX	The current prototype index value - IBM use only
14	(E)	CHARACTER	2	WICWR_RSVD0D	Reserved - IBM use only
16	(10)	CHARACTER	16	WICWR_PRODLEVEL	The program product level. - Bytes 0-7 contain the product name - Bytes 8-15 contain the FMID

Table 550. Structure WICWR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>Aggregate buckets parameter list (mapped by WicWR_AggregateBucketParmList) Up to two aggregate buckets are supported. IFAWIC exit exploiters may want to utilize two aggregate buckets, for example, one aggregate bucket can be used for global or non-CP related information, whereas, a second aggregate bucket can be used for CP related information. Notes: 1. For additional information on the structure of the aggregate bucket, see the definition of WicWR_AggBucket in this mapping macro. For an understanding of the output of the aggregate bucket in an SMF98.x record see the definition SMF98AggBucket in IHAHR098. 2. The number of aggregate bucket entries (instances) must be the product of the following:</p> <ul style="list-style-type: none"> <li>o the number of CPU types (1 for CP only, or WicWR_kCPUTypeDefNum (2) for CPs+zIIPs) times</li> <li>o the number of job priority buckets (WicWR_kJobPriorityDefNum (5)) times</li> <li>o one of the following: <ul style="list-style-type: none"> <li>- When WicWR_CustomJobSizeEntries is zero, the default number of job sizes (WicWR_kJobSizeDefNum (5)). In this case, there must be WicWR_kNumEntsOneCPUType (1 5 5=25) or WicWR_kNumEntsTwoCPUType (2 5 5=50) aggregate bucket entries.</li> <li>- When WicWR_CustomJobSizeEntries is non-zero, the exploiter replaces the job size bucket entries WicWR_kJobSizeLarge (1) to WicWR_kJobSizeTiny (4) with exploiter defined bucket entries from 1 to WicWR_CustomJobSizeEntries. In this case, there must be (1 5 (1+WicWR_CustomJobSizeEntries)) or (2 5 (1+WicWR_CustomJobSizeEntries)) aggregate bucket entries, where the 1+ is equivalent to WicWR_kJobSizeDefNumReq, which represents Job size bucket entry</li> </ul> </li> </ul> <p>WicWR_kJobSizeAll (0), which cannot be replaced.</p> <p>3. The aggregate bucket length defines the length of the exploiter's aggregate bucket for one entry (i.e. the length includes the length of the contributors, the record area and internal area). See WicWR_AggBucket definition. 4. The aggregate bucket write length defines the length of the aggregate bucket entry that will be written to the SMF98.x record. It includes the length of the contributors plus the length of the record area. See WicWR_AggBucket definition. 5. The write length of one aggregate bucket cannot be greater than the length of one aggregate bucket entry (instance).</p>					
32	(20)	CHARACTER	24	WICWR_AGGBUCKETPARMLIST1	First aggregate bucket parameter list
56	(38)	CHARACTER	24	WICWR_AGGBUCKETPARMLIST2	Second aggregate bucket parameter list

Table 550. Structure WICWR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
<p>Exception bucket parameter list Only one exception bucket is supported. Note: 1. For additional information on the structure of the exception bucket, see the definition of WicWR_ExcBucket in this mapping macro. For an understanding of the output of the exception bucket in an SMF98.x record see the definition SMF98JobIdx and SMF98JobList in IHAHR098.</p> <p>2. The number of exception bucket entries (WicWR_ExcBucketNumOfEntries) must be the product of the following:</p> <ul style="list-style-type: none"> <li>o the number of exception activities (WicWR_ExcBucketNumOfActivities) times</li> <li>o the number of CPU types (1 for CP only, or WicWR_kCPUTypeDefNum (2) for CPs+zIIPs) times</li> <li>o the number of job priority buckets (WicWR_kJobPriorityDefNum (5)) times</li> <li>o one of the following: <ul style="list-style-type: none"> <li>- When WicWR_CustomJobSizeEntries is zero, the default number of job sizes (WicWR_kJobSizeDefNum (5)).</li> </ul> </li> </ul> <p>In this case, there must be WicWR_ExcBucketNumOfActivities CPU Types (1 or 2) Priority Buckets (5) Job Size Buckets (5) exception bucket entries.</p> <ul style="list-style-type: none"> <li>- When WicWR_CustomJobSizeEntries is non-zero, the exploiter replaces the job size bucket entries WicWR_kJobSizeLarge (1) to WicWR_kJobSizeTiny (4) with exploiter defined bucket entries from 1 to WicWR_CustomJobSizeEntries.</li> </ul> <p>In this case, there must be WicWR_ExcBucketNumOfActivities CPU Types (1 or 2) Priority Buckets (5) (1+WicWR_CustomJobSizeEntries) exception bucket entries, where the 1+ is equivalent to WicWR_kJobSizeDefNumReq, which represents Job size bucket entry WicWR_kJobSizeAll (0), which cannot be replaced.</p> <p>3. The exception bucket entry length defines the length of</p>					
<p>the exploiter's exception bucket for one entry (i.e. this includes the length of the ASID, Job Name, record area and internal area). See WicWR_ExpBucket definition. 4. The write length of one exception bucket cannot be greater than the length of one exception bucket entry (instance).</p>					
80	(50)	CHARACTER	24	WICWR_EXCEPTIONBUCKETPARMLIST	Exception bucket parameter list
80	(50)	SIGNED	4	WICWR_EXCCKETNUMOFENTRIES	The number of entries in the exception bucket. For value requirements of this field, see the previous block comment
84	(54)	SIGNED	4	WICWR_EXCCKETNUMOFACTIVITIES	The number of activities for the exception bucket
88	(58)	SIGNED	4	WICWR_EXCCKETENTRYLENGTH	The total length of one entry (instance) in the exception bucket exploiter area
92	(5C)	SIGNED	4	WICWR_EXCCKETENTRYWRITELENGTH	The write length one entry in the exception bucket exploiter area
96	(60)	ADDRESS	8	WICWR_EXCCKETSTARTADDR	Starting address of the exception bucket - see WicWR_ExcBucket
Constants for Write SMF 98.x Record Service					
96	(60)	X'1'	0	WICWR_KVER	"1" Current version



Table 550. Structure WICWR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
96	(60)	X'1'	0	WICWR_KMAXVER	"1"
96	(60)	X'1'	0	WICWR_KVER1	"1"
96	(60)	X'1'	0	WICWR_#VER	"1" Current version
96	(60)	X'1'	0	WICWR_#MAXVER	"1"
96	(60)	X'1'	0	WICWR_#VER1	"1"
96	(60)	X'40'	0	WICWR_KCUSTOMJOBSIZEENTRIESMAX	"64"
96	(60)	X'68'	0	WICWR_PARMLIST_LEN	"*-WicWR_ParmList"

Table 551. Structure WICWR\_AGGBUCKETPARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICWR_AGGBUCKETPARMLIST	Aggregate bucket parameter lists
0	(0)	SIGNED	4	WICWR_AGGBUCKETNUMOFENTRIES	The number of entries for this aggregate bucket
4	(4)	SIGNED	4	WICWR_AGGBUCKETENTRYLENGTH	The total length of one entry (instance) in the aggregate bucket exploiter area
8	(8)	SIGNED	4	WICWR_AGGBUCKETENTRYWRITELENGTH	The write length of one entry in the aggregate bucket exploiter area
12	(C)	CHARACTER	4	WICWR_RSVD2B	Reserved for alignment
16	(10)	ADDRESS	8	WICWR_AGGBUCKETSTARTADDR	Starting address of the aggregate bucket - see WicWR_AggBucket
16	(10)	X'18'	0	WICWR_AGGBUCKETPARMLIST_LEN	"*-WicWR_AggBucketParmList"

Table 552. Structure WICWR\_AGGBUCKET

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WICWR_AGGBUCKET	Aggregate bucket
Aggregate bucket exploiter area					
0	(0)	CHARACTER	2	WICWR_AGGBUCKETEXPAREA	Aggregate bucket exploiter area
Contributors - the number of contributors for this bucket instance					
0	(0)	SIGNED	2	WICWR_AGGBUCKET_CONTRIBUTORS	Number of address spaces contributing to this bucket entry - supplied by the exploiter
Aggregate bucket data area					
2	(2)	CHARACTER	1	WICWR_AGGBUCKET_DATA(0)	Aggregate bucket data area End of Aggregate Bucket definition
2	(2)	X'2'	0	WICWR_AGGBUCKET_LEN	"*-WicWR_AggBucket"

Table 553. Structure WICWR\_EXCbucket

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	WICWR_EXCbucket	Exception bucket
Exception bucket exploiter area					
0	(0)	CHARACTER	10	WICWR_EXCbucketEXPAREA	Exception bucket exploiter area
ASID - the address space identifier for this bucket instance					
0	(0)	SIGNED	2	WICWR_EXCbucket_ASID	Address space id - supplied by the exploiter
Jobname - the jobname for this bucket instance					
2	(2)	CHARACTER	8	WICWR_EXCbucket_JOBNAME	Jobnamespace id - supplied by the exploiter
Exception bucket data area					
10	(A)	CHARACTER	1	WICWR_EXCbucket_DATA(0)	Exception bucket data area End of exception bucket definition
Aggregate bucket sizes for aggregate buckets that contain one processor type or two processor types.					
10	(A)	X'19'	0	WICWR_KNUMENTSONECPUTYPE	"25"
10	(A)	X'32'	0	WICWR_KNUMENTSTWOCPUTYPE	"50"
CPU Type constants					
10	(A)	X'0'	0	WICWR_KCPUTYPECP	"0"
10	(A)	X'1'	0	WICWR_KCPUTYPEZIIP	"1"
10	(A)	X'0'	0	WICWR_KCPUTYPEDEFFIRST	"0"
10	(A)	X'1'	0	WICWR_KCPUTYPEDEFLAST	"1"
10	(A)	X'2'	0	WICWR_KCPUTYPEDEFNUM	"2"
10	(A)	X'1'	0	WICWR_KCPUTYPEDEFNUMCPONLY	"1"
JobPriority constants					
10	(A)	X'0'	0	WICWR_KJOBPRIORITYALL	"0"
10	(A)	X'1'	0	WICWR_KJOBPRIORITYCRITICAL	"1"
10	(A)	X'2'	0	WICWR_KJOBPRIORITYHIGH	"2"
10	(A)	X'3'	0	WICWR_KJOBPRIORITYLOW	"3"
10	(A)	X'4'	0	WICWR_KJOBPRIORITYDISC	"4"
10	(A)	X'0'	0	WICWR_KJOBPRIORITYDEFFIRST	"0"
10	(A)	X'4'	0	WICWR_KJOBPRIORITYDEFLAST	"4"
10	(A)	X'5'	0	WICWR_KJOBPRIORITYDEFNUM	"5"
JobSize constants					
10	(A)	X'0'	0	WICWR_KJOBSIZEALL	"0"
10	(A)	X'1'	0	WICWR_KJOBSIZELARGE	"1"
10	(A)	X'2'	0	WICWR_KJOBSIZEMEDIUM	"2"
10	(A)	X'3'	0	WICWR_KJOBSIZESMALL	"3"
10	(A)	X'4'	0	WICWR_KJOBSIZETINY	"4"
10	(A)	X'0'	0	WICWR_KJOBSIZEDEFFIRST	"0"

Table 553. Structure WICWR\_EXCbucket (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
10	(A) X'4'		0	WICWR_KJOBSIZEDEFLAST	"4"
10	(A) X'5'		0	WICWR_KJOBSIZEDEFNUM	"5"
10	(A) X'1'		0	WICWR_KJOBSIZEDEFNUMREQ	"1" Job size default number of required bucket entries. WicWR_kJobSizeAll is required.
Wic Exit Services Return and reason code constants Successful return and reason codes					
	.... ....			WICSRV_RC_SUCCESS	"X'00000000" Meaning: The get next buffer service has returned the first or next WIC buffer or the clear buffer service has cleared the WIC buffer starting at the given offset for the given length, or the build and write service SMF98.x has successfully built and written the SMF98.x record. Action: None
Warning return and reason codes					
	.... .1..			WICSRV_RC_WARNING	"X'00000004" Meaning: The get next buffer service, the clear buffer, or the build and write SMF98.x service completed with a warning Action: See the issued reason code
10	(A) BITSTRING		0	WICSRV_RSN_NOMOREBUFFERS	"X'00000401" Meaning: The get next buffer service was unable to find the first or "next" WIC buffer. Action: Callers of the WIC service should terminate current processing and move on to the next phase of exit processing
10	(A) BITSTRING		0	WICSRV_RSN_CLEARSTADDRBUFLenOUTOFRANGE	"X'00000402" Meaning: The caller of the clear buffer service specified a buffer length to clear that when combined with the starting address within the WIC buffer extended beyond the buffer size requested when the IFAWIC REGISTER request was issued for the subtype. The WIC buffer area starting at the address to clear is clear (set to binary 0s). Action: To avoid this warning re-register the subtype specifying a larger buffer size.
10	(A) BITSTRING		0	WICSRV_RSN_APPROACHINGMAXSMF98RECLen	"X'0000040A" Meaning: The build and write SMF98.x service has determined that the SMF98.x record is approaching the 32756 byte record length limit. The SMF98.x record is written. Action: Verify that the number of records for the aggregate buckets and the exception bucket and the write lengths for the buckets are correct. If the the number of records and write lengths are correct, consider reducing the amount of data recorded for each aggregate bucket record and/or exception bucket record.
User error return and reason codes					
	.... 1...			WICSRV_RC_USERERROR	"X'00000008" Meaning: The called service completed with a user error Action: See the issued reason code

Table 553. Structure WICWR\_EXCbucket (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
10	(A)	BITSTRING	0	WICSRV_RSN_BADPARMLIST	"X'00000801" Meaning: An invalid parameter list was built and supplied to the called service. Action: Verify the parameter list for the called service is built and initialized properly
10	(A)	BITSTRING	0	WICSRV_RSN_BADCLEARSTADDRBUFLN	"X'00000802" Meaning: The caller of the clear buffer service specified a starting WIC buffer address and buffer length to clear that extends beyond the maximum size of a WIC buffer or is not within the range for the subtype within the buffer area is not cleared. Action: Verify that either the starting buffer address is correct and/or the buffer length to clear is correct.
10	(A)	BITSTRING	0	WICSRV_RSN_AGGBUCKETSNOTSPECIFIED	"X'00000803" Meaning: The caller of the build and write SMF98.x service specified a zero address for both the aggregate bucket addresses within the aggregate bucket portion of the parameter list. Action: Verify that at least one of the aggregate bucket addresses specified and is not zero
10	(A)	BITSTRING	0	WICSRV_RSN_BADNUMOFAGGBUCKETENTRIES	"X'00000804" Meaning: The caller of the build and write SMF98.x service specified a bad number of aggregate bucket entries. Action: Specify a correct number of aggregate buckets based on the comments before WicWR_AggBucket
10	(A)	BITSTRING	0	WICSRV_RSN_AGGBUCKETWRLNGTONEBUCLN	"X'00000805" Meaning: The caller of the build and write SMF98.x service specified a write length for one aggregate bucket entry that is greater than one aggregate bucket entry length. Action: Verify the write length of one aggregate bucket entry is defined to be less than the length of one aggregate bucket entry.
10	(A)	BITSTRING	0	WICSRV_RSN_EXCbucketNOTSPECIFIED	"X'00000807" Meaning: The caller of the build and write SMF98.x service specified a zero address for the exception bucket address, or specified a zero for the number of entries contained in the exception bucket, or specified a zero for the number of activities, within the exception bucket portion of the parameter list. Action: Verify that the exception bucket address is specified and is not zero, and/or the number of entries is not zero, and/or the number of activities is not zero.
10	(A)	BITSTRING	0	WICSRV_RSN_BADNUMOFEXCbucketENTRIES	"X'00000808" Meaning: The caller of the build and write SMF98.x service specified a bad number exception bucket entries. Action: Specify a correct number of exception bucket entries based on the comments before WicWR_ExcBucket

Table 553. Structure WICWR\_EXCBUCKET (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
10	(A)	BITSTRING	0	WICSRV_RSN_EXCBUCKETWRLONGTONEBUCLN	"X'00000809" Meaning: The caller of the build and write SMF98.x service specified a write length for one exception bucket entry that is greater than one exception bucket entry length. Action: Verify the write length of one exception bucket entry is defined to be less than the length of one exception bucket entry.
10	(A)	BITSTRING	0	WICSRV_RSN_SMF98RECORDTOOLONG	"X'0000080A" Meaning: The build and write SMF98.x service has determined that the SMF98.x record exceeds 32756 bytes in length. The SMF98.x record is not written. Action: Verify that the number of records for the aggregate buckets and the exception bucket and the write lengths for the buckets are correct. If the the number of records and write lengths are correct, consider reducing the amount of data recorded for each aggregate bucket record and/or exception bucket record.
10	(A)	BITSTRING	0	WICSRV_RSN_BADCUSTOMJOBSIZEENTRIES	"X'0000080B" Meaning: The build and write SMF98.x service has determined WicWR_CustomJobSizeEntries is greater than WicWR_kCustomJobSizeEntriesMax. The SMF98.x record is not written. Action: Set WicWR_CustomJobSizeEntries to a value less than or equal to WicWR_kCustomJobSizeEntries Max.
10	(A)	BITSTRING	0	WICSRV_RSN_ZIIPAGGBUCEXCUNIQUEBYJOBSIZE	"X'0000080C" Meaning: The build and write SMF98.x service has determined zIIP aggregate bucket(s) (WicWR_AggBucket) were provided when an exception job's activities with different job sizes are unique (WicWR_FlagExcJobsUniqueByJobSize is on). The SMF98.x record is not written. Action: Remove zIIP aggregate bucket(s) from WicWR_AggBucket or indicate exception job activities are the same for all job sizes by specifying WicWR_FlagExcJobsUniqueByJobSize off.
10	(A)	BITSTRING	0	WICSRV_RSN_ZIIPEXCBUCEXCUNIQUEBYJOBSIZE	"X'0000080D" Meaning: The build and write SMF98.x service has determined that zIIP exception job bucket (WicWR_ExcBucket) was provided when an exception job's activities with different job sizes are unique (WicWR_FlagExcJobsUniqueByJobSize is on). The SMF98.x record is not written. Action: Remove zIIP exception bucket(s) from WicWR_ExcBucket or indicate exception job activities are the same for all job sizes by specifying WicWR_FlagExcJobsUniqueByJobSize off.

Environment error return and reason codes

Table 553. Structure WICWR\_EXCbucket (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 11..		WICSRV_RC_ENVERROR	"X'0000000C'" Meaning: The WIC service did not complete successfully due to an environmental error. Action: See the issued reason code
10	(A)	BITSTRING	0	WICSRV_RSN_UNABLETOWRITESMF98RECORD	"X'00000001'" Meaning: The SMF98.x build and write service was unable to write the SMF98.x record. Action: This error is issued when the return code from the SMFEWTM macro invocation is non-zero. Refer to the high half (bits 0-15) of this reason code for the return code issued by the SMFEWTM macro. Documentation and corrective actions for the SMFEWTM return codes can be found in the z/OS MVS System Management Facilities (SMF) publication
10	(A)	X'A'	0	WICWR_EXCbucket_LEN	"*-WicWR_ExcBucket"

Table 554. Cross Reference for IFAWICCB

Name	Offset	Hex Tag
IFAWIC_RC_COMPERROR	28	10
IFAWIC_RC_ENVERROR	28	C
IFAWIC_RC_SUCCESS	28	0
IFAWIC_RC_USERERROR	28	8
IFAWIC_RC_WARNING	28	4
IFAWIC_RSN_ALREADYREGISTERED	28	403
IFAWIC_RSN_BADBUFFERKEY	28	805
IFAWIC_RSN_BADREQUESTTYPE	28	804
IFAWIC_RSN_BADVERSION	28	802
IFAWIC_RSN_BUFFERKEYMISMATCH	28	824
IFAWIC_RSN_BUFFER4KPAGESLARGER	28	402
IFAWIC_RSN_BUFFER4KPAGESSMALLER	28	401
IFAWIC_RSN_BUFFER4KPAGESTOOLARGE	28	823
IFAWIC_RSN_BUFFER4KPAGESZERO	28	822
IFAWIC_RSN_CALLERFRR	28	813
IFAWIC_RSN_COMPERROR	28	1001
IFAWIC_RSN_ENVNOEXIT	28	C03
IFAWIC_RSN_EXITRTNAMODE24	28	833
IFAWIC_RSN_EXITRTNNAMENOTUNIQUE	28	835
IFAWIC_RSN_EXITRTNNOSTORAGE	28	C10
IFAWIC_RSN_EXITRTNNOTFOUND	28	831
IFAWIC_RSN_EXITRTNNOTINAPFLIB	28	832
IFAWIC_RSN_EXITRTNNOTREentrant	28	834
IFAWIC_RSN_EXITVERSIONIGNORED	28	405
IFAWIC_RSN_EXITVERSIONZERO	28	821

Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
IFAWIC_RSN_HOMENOTPRIMARY	28	812
IFAWIC_RSN_LOCKED	28	811
IFAWIC_RSN_NOTAUTHORIZED	28	814
IFAWIC_RSN_NOTENABLED	28	810
IFAWIC_RSN_NOTREGISTERED	28	404
IFAWIC_RSN_PARMLISTALET	28	801
IFAWIC_RSN_PARMLISTFETCH	28	807
IFAWIC_RSN_PARMLISTWRITE	28	808
IFAWIC_RSN_RESERVEDNOT0	28	803
IFAWIC_RSN_SAMEVEREXITROUTINEMISMATCH	28	830
IFAWIC_RSN_SMFNOWICSPECIFIED	28	C04
IFAWIC_RSN_SRBMODE	28	825
IFAWIC_RSN_SUBTYPEINPUT	28	820
IFAWIC_RSN_SUBTYPENOTCOLLECTED	28	482
IFAWIC_RSN_SYSTEMNOTREADY	28	C01
IFAWIC_RSN_UNEXPECTEDLOADERROR	28	C11
IFAWIC_RSN_UNSUPPORTEDMACHINE	28	C02
IFAWIC_RSN_WICFEATURENOTENABLED	28	481
WIC_KDYNAMICAREALENGTH	28	2000
WIC_KFIRSTTESTSUBTYPE	28	2000
WIC_KLASTTESTSUBTYPE	28	2007
WIC_KMAX4KPAGES	28	10
WIC_KPROCCLASSINDEX_CP	28	0
WIC_KPROCCLASSINDEX_ZIIP	28	2
WIC_NOTFULLYAVAIL_LOWHIGHMASK	2	FF00
WIC_RSN_CODEMASK	28	FFFF
WIC_WARNING_ALREADYREGISTERED	1	80
WIC_WARNING_BUFFER4KPAGESDIFFERENT	1	40
WIC_WARNING_CODE	2	
WIC_WARNING_EXITVERSIONIGNORED	1	20
WIC_WARNING_FLAGS	0	
WIC_WARNING_FLAGSDEREGISTER	0	
WIC_WARNING_FLAGSDEREGISTERBYTE1	0	
WIC_WARNING_FLAGSDEREGISTERGENERAL	1	
WIC_WARNING_FLAGSREGISTER	0	
WIC_WARNING_FLAGSREGISTERGENERAL	1	
WIC_WARNING_NOTREGISTERED	1	80
WIC_WARNING_RSN	0	
WIC_WARNING_RSN_LEN	2	4

Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
WIC_WARNING_SUBTYPENOTCOLLECTED	0	40
WIC_WARNING_WICFEATURENOTENABLED	0	80
WIC_WARNING_WICNOTFULLYAVAIL	0	
WICCB_#MAXVER	10	1
WICCB_#VER	10	1
WICCB_#VER1	10	1
WICCB_INASID	2	
WICCB_INBUFLENTOCLEAR	10	
WICCB_INSTARTADDRBUFTOCLEAR	8	
WICCB_KMAXVER	10	1
WICCB_KVER	10	1
WICCB_KVER1	10	1
WICCB_PARMLIST	0	
WICCB_PARMLIST_LEN	10	14
WICCB_RESERVED1	4	
WICCB_VERSION	0	
WICENF	0	
WICENF_CODE_INSTRUMENTATIONCHANGE	2	1
WICENF_CODE_REGISTERAVAILABLE	2	2
WICENF_EXITADDERROR	C	20
WICENF_EYE	0	
WICENF_EYECONST_0TO3	D	C9C3C5
WICENF_EYECONST_4TO7	D	C64040
WICENF_FLAGS	C	
WICENF_INSTRUMENTATIONREQUESTED	C	80
WICENF_LEN	D	10
WICENF_REGISTERISAVAILABLE	C	40
WICENF_SUBTYPE	A	
WICENF_VERCONST	D	1
WICENF_VERSION	8	
WICENF_VER1CONST	D	1
WICENFQUAL	0	
WICENFQUAL_CODE	0	
WICENFQUAL_LEN	2	4
WICENFQUAL_SUBTYPE	2	
WICNB_#MAXVER	28	1
WICNB_#VER	28	1
WICNB_#VER1	28	1
WICNB_ASINFO	18	



Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
WICNB_INOUTASID	2	
WICNB_KMAXVER	28	1
WICNB_KVER	28	1
WICNB_KVER1	28	1
WICNB_OUTAREA	18	
WICNB_OUTBUFFERADDR	28	
WICNB_OUTJOBNAME	18	
WICNB_OUTJOBPRIORITYAREA	20	
WICNB_OUTJOBPRIORITYBUCKET	20	
WICNB_OUTJOBSIZEBUCKET	22	
WICNB_PARMLIST	0	
WICNB_PARMLIST_LEN	28	30
WICNB_RESERVED1	4	
WICNB_VERSION	0	
WICPARM	0	
WICPARM_DYNAREALEN	10	
WICPARM_DYNAREAPTR	8	
WICPARM_KVERSIONCURRENT	28	1
WICPARM_KVERSIONFIRST	28	1
WICPARM_LEN	28	30
WICPARM_LENGTH	2	
WICPARM_REQPRIME	28	1
WICPARM_REQUEST	6	
WICPARM_REQWRITERECORD	28	2
WICPARM_SUBTYPE	4	
WICPARM_VERSION	0	
WICPARM_WICSRV_CLEARBUFFERPTR	20	
WICPARM_WICSRV_GETNEXTBUFFERPTR	18	
WICPARM_WICSRV_WRITESMF98PTR	28	
WICSRV_RC_ENVERROR	A	C
WICSRV_RC_SUCCESS	A	0
WICSRV_RC_USERERROR	A	8
WICSRV_RC_WARNING	A	4
WICSRV_RSN_AGGBUCKETSNOTSPECIFIED	A	803
WICSRV_RSN_AGGBUCKETWRLONGTONEBUCLN	A	805
WICSRV_RSN_APPROACHINGMAXSMF98RECLN	A	40A
WICSRV_RSN_BADCLEARSTADDRBUFLN	A	802
WICSRV_RSN_BADCUSTOMJOBSIZEENTRIES	A	80B
WICSRV_RSN_BADNUMOFAGGBUCKETENTRIES	A	804

Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
WICSRV_RSN_BADNUMOFEXCBUCKETENTRIES	A	808
WICSRV_RSN_BADPARMLIST	A	801
WICSRV_RSN_CLEARSTADDRBUFLNOUTOFRANGE	A	402
WICSRV_RSN_EXCBUCKETNOTSPECIFIED	A	807
WICSRV_RSN_EXCBUCKETWRLNGTONEBUCLN	A	809
WICSRV_RSN_NOMOREBUFFERS	A	401
WICSRV_RSN_SMF98RECORDTOOLONG	A	80A
WICSRV_RSN_UNABLETOWRITESMF98RECORD	A	C01
WICSRV_RSN_ZIIPAGGBUCEXCUNIQUEBYJOBSIZE	A	80C
WICSRV_RSN_ZIIPEXCBUCEXCUNIQUEBYJOBSIZE	A	80D
WICWR_#MAXVER	60	1
WICWR_#VER	60	1
WICWR_#VER1	60	1
WICWR_AGGBUCKET	0	
WICWR_AGGBUCKET_CONTRIBUTORS	0	
WICWR_AGGBUCKET_DATA	2	
WICWR_AGGBUCKET_LEN	2	2
WICWR_AGGBUCKETENTRYLENGTH	4	
WICWR_AGGBUCKETENTRYWRITELENGTH	8	
WICWR_AGGBUCKETEXPAREA	0	
WICWR_AGGBUCKETNUMOFENTRIES	0	
WICWR_AGGBUCKETPARMLIST	0	
WICWR_AGGBUCKETPARMLIST_LEN	10	18
WICWR_AGGBUCKETPARMLIST1	20	
WICWR_AGGBUCKETPARMLIST2	38	
WICWR_AGGBUCKETSTARTADDR	10	
WICWR_CUSTOMJOBSIZEENTRIES	7	
WICWR_EXCBUCKET	0	
WICWR_EXCBUCKET_ASID	0	
WICWR_EXCBUCKET_DATA	A	
WICWR_EXCBUCKET_JOBNAME	2	
WICWR_EXCBUCKET_LEN	A	A
WICWR_EXCBUCKETENTRYLENGTH	58	
WICWR_EXCBUCKETENTRYWRITELENGTH	5C	
WICWR_EXCBUCKETEXPAREA	0	
WICWR_EXCBUCKETNUMOFACTIVITIES	54	
WICWR_EXCBUCKETNUMOFENTRIES	50	
WICWR_EXCBUCKETSTARTADDR	60	
WICWR_EXCEPTIONBUCKETPARMLIST	50	

Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
WICWR_FLAG	6	
WICWR_FLAGEXCJOBSUNIQUEBYJOBSIZE	6	80
WICWR_FLAGRSVD	6	7F
WICWR_KCPUTYPECP	A	0
WICWR_KCPUTYPEDEFFIRST	A	0
WICWR_KCPUTYPEDEFLAST	A	1
WICWR_KCPUTYPEDEFNUM	A	2
WICWR_KCPUTYPEDEFNUMCPONLY	A	1
WICWR_KCPUTYPEZIIP	A	1
WICWR_KCUSTOMJOBSIZEENTRIESMAX	60	40
WICWR_KJOBPRIORITYALL	A	0
WICWR_KJOBPRIORITYCRITICAL	A	1
WICWR_KJOBPRIORITYDEFFIRST	A	0
WICWR_KJOBPRIORITYDEFLAST	A	4
WICWR_KJOBPRIORITYDEFNUM	A	5
WICWR_KJOBPRIORITYDISC	A	4
WICWR_KJOBPRIORITYHIGH	A	2
WICWR_KJOBPRIORITYLOW	A	3
WICWR_KJOBSIZEALL	A	0
WICWR_KJOBSIZEDEFFIRST	A	0
WICWR_KJOBSIZEDEFLAST	A	4
WICWR_KJOBSIZEDEFNUM	A	5
WICWR_KJOBSIZEDEFNUMREQ	A	1
WICWR_KJOBSIZELARGE	A	1
WICWR_KJOBSIZEMEDIUM	A	2
WICWR_KJOBSIZESMALL	A	3
WICWR_KJOBSIZETINY	A	4
WICWR_KMAXVER	60	1
WICWR_KNUMENTSONECPUTYPE	A	19
WICWR_KNUMENTSTWOCPUTYPE	A	32
WICWR_KVER	60	1
WICWR_KVER1	60	1
WICWR_PARMLIST	0	
WICWR_PARMLIST_LEN	60	68
WICWR_PRODLEVEL	10	
WICWR_PROTOTYPEINDEX	C	
WICWR_RELEASEINDEX	8	
WICWR_RSVD0D	E	
WICWR_RSVD02	2	

Table 554. Cross Reference for IFAWICCB (continued)

Name	Offset	Hex Tag
WICWR_RSVD2B	C	
WICWR_SUBTYPEINFO	8	
WICWR_VERSION	0	
WICWR_WITHINRELEASEINDEX	A	

## IFAZSYSP information

### IFAZSYSP heading information

<b>Common name:</b>	SMF Realtime Service Parameter Mappings
<b>Macro ID:</b>	IFAZSYSP
<b>DSECT name:</b>	SYSP
<b>Owning component:</b>	SMF (SC100)
<b>Eye-catcher ID:</b>	Offset: N/A Length: N/A
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	QRPBX_INMEMRESOURCE_EXT -- X'0120' bytes QRPB_INMEMRESOURCE -- X'0044' bytes QRYPARMBLOCK -- X'0020' bytes CONPARMBLOCK -- X'006A' bytes GETPARMBLOCK -- X'0040' bytes DSCPARMBLOCK -- X'0018' bytes
<b>Created by:</b>	Storage of caller of IFAXyyy callable services
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	The SYSP contains the parameter mappings for the various SMF Realtime callable services. It is intended to be used by the callers of these services.

### IFAZSYSP mapping

Table 555. Structure CONPARMBLOCK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CONPARMBLOCK	
0	(0)	CHARACTER	106	CNPB_STATIC(0)	
0	(0)	CHARACTER	4	CNPB_EYECATCHER	Eye catcher
4	(4)	SIGNED	2	CNPB_LENGTH	Length of the block
6	(6)	CHARACTER	1		Unused
7	(7)	BITSTRING	1	CNPB_VERSION	Version number
8	(8)	CHARACTER	4		Reserved

Table 555. Structure CONPARMBLOCK (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	SIGNED	2	CNPB_NAMELENGTH	Length of the name of the memory buffer resource
14	(E)	CHARACTER	26	CNPB_NAME	Name of the memory buffer resource
40	(28)	CHARACTER	16		Reserved
56	(38)	CHARACTER	16	CNPB_TOKEN	Output token for other services
72	(48)	CHARACTER	34		Reserved
72	(48)	X'D5D7C2'	0	CNPB#CATCHER	"C'CNPB'"
72	(48)	X'1'	0	CNPB#CURVER	"1"
72	(48)	X'6A'	0	CNPB#PARMLEN	"106"
72	(48)	X'6A'	0	CONPARMBLOCK_LEN	"*-CONPARMBLOCK"

Table 556. Structure GETPARMBLOCK

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	GETPARMBLOCK	
0	(0)	CHARACTER	4	GTPB_EYECATCHER	Eye catcher
4	(4)	SIGNED	2	GTPB_LENGTH	Length of block
6	(6)	CHARACTER	1		Reserved
7	(7)	BITSTRING	1	GTPB_VERSION	Version
8	(8)	CHARACTER	4	GTPB_FLAGS(0)	Flags
		1... ....		GTPB_MULTIREC	"X'80'" When ON this is a multi-record request
		..1. ....		GTPB_EARLY30S5	"X'20'" When ON an SMF30 Subtype 5 will cause a multi-record request to return early
		...1 ....		GTPB_NONBLOCKING	"X'10'" If no data is available do not block the request
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	16	GTPB_TOKEN	Input token from the IFAMCON service
32	(20)	SIGNED	4	GTPB_BUFFERLENGTH	Length of the provided buffer in bytes
36	(24)	CHARACTER	16		Reserved
52	(34)	SIGNED	4	GTPB_RETURNEDLENGTH	Length of data returned in the buffer in bytes
56	(38)	ADDRESS	8	GTPB_BUFFER@	Address of the provided buffer
56	(38)	X'E3D7C2'	0	GTPB#CATCHER	"C'GTPB'"
56	(38)	X'1'	0	GTPB#CURVER	"1"
56	(38)	X'40'	0	GTPB#PARMLEN	"64"
56	(38)	X'40'	0	GETPARMBLOCK_LEN	"*-GETPARMBLOCK"

Table 557. Structure DSCPARMBLOCK

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DSCPARMBLOCK	
0	(0)	CHARACTER	4	DSPB_EYECATCHER	Eye catcher
4	(4)	SIGNED	2	DSPB_LENGTH	Length
6	(6)	CHARACTER	1		Reserved
7	(7)	BITSTRING	1	DSPB_VERSION	Version
8	(8)	CHARACTER	16	DSPB_TOKEN	Input token from the IFAMCON service

Table 557. Structure DSCPARMBLOCK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	X'E2D7C2'	0	DSPB#CATCHER	"C'DSPB' "
8	(8)	X'1'	0	DSPB#CURVER	"1"
8	(8)	X'18'	0	DSPB#PARMLEN	"24"
8	(8)	X'18'	0	DSCPARMBLOCK_LEN	"*-DSCPARMBLOCK"

Table 558. Structure QRYPARMBLOCK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QRYPARMBLOCK	
0	(0)	CHARACTER	4	QRPB_EYECATCHER	Eye catcher
4	(4)	SIGNED	2	QRPB_LENGTH	Length of block
6	(6)	CHARACTER	1		Reserved
7	(7)	BITSTRING	1	QRPB_VERSION	Version
8	(8)	BITSTRING	2	QRPB_FLAGS1(0)	Request flags
		1... ....		QRPB_EXTENDEDYPES	"X'80'" Request return of extended types. When on, the output area will be mapped by QrPbX_InMemResource_Ext
8	(8)	BITSTRING	1		Reserved
10	(A)	CHARACTER	2		Reserved
12	(C)	SIGNED	4	QRPB_RETURNEDIMRS	Number of returned in- memory resources
16	(10)	SIGNED	4	QRPB_BUFFERSIZE	Size of the provided buffer in bytes
20	(14)	CHARACTER	4		Not Used
24	(18)	ADDRESS	8	QRPB_BUFFER@	Address of the provided buffer
24	(18)	X'D9D7C2'	0	QRPB#CATCHER	"C'QRPB' "
24	(18)	X'1'	0	QRPB#CURVER	"1"
24	(18)	X'20'	0	QRPB#PARMLEN	"32"
24	(18)	X'20'	0	QRYPARMBLOCK_LEN	"*-QRYPARMBLOCK"

Table 559. Structure QRPB\_INMEMRESOURCE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QRPB_INMEMRESOURCE	
0	(0)	SIGNED	2	QRPB_INMEMNAMELENGTH	Length of the name
2	(2)	CHARACTER	26	QRPB_INMEMNAME	Name of the in-memory resource padded with blanks
28	(1C)	BITSTRING	32	QRPB_INMEMTYPES	Bit mask of types available from this in- memory resource
60	(3C)	CHARACTER	8		Reserved
60	(3C)	X'44'	0	QRPB#INMEMPARMLEN	"68"
60	(3C)	X'44'	0	QRPB_INMEMRESOURCE_LEN	"*-QRPB_INMEMRESOURCE"

Table 560. Structure QRPBX\_INMEMRESOURCE\_EXT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QRPBX_INMEMRESOURCE_EXT	Returned data blk
0	(0)	SIGNED	2	QRPBX_INMEMNAMELENGTH	Length of the name
2	(2)	CHARACTER	26	QRPBX_INMEMNAME	Name of the in-memory resource padded with blanks

Table 560. Structure QRPBX\_INMEMRESOURCE\_EXT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
28	(1C)	CHARACTER	4		Reserved for alignment
32	(20)	CHARACTER	256	QRPBX_INMEMTYPES	Bit mask of types available from this in- memory resource, i.e. types 0 to 2047
32	(20)	X'120'	0	QRPBX#INMEMPARMLEN	"288" Largest single entry size in QrPbX_InMemResource_Ext. ASM users: Use QRPBX_INMEMRESOURCE_EXT_LEN
32	(20)	X'120'	0	QRPBX_INMEMRESOURCE_EXT_LEN	"*-QRPBX_INMEMRESOURCE_EXT"

Table 561. Cross Reference for IFAZSYSP

Name	Offset	Hex Tag
CNPB_EYECATCHER	0	
CNPB_LENGTH	4	
CNPB_NAME	E	
CNPB_NAMELENGTH	C	
CNPB_STATIC	0	
CNPB_TOKEN	38	
CNPB_VERSION	7	
CNPB#CATCHER	48	D5D7C2
CNPB#CURVER	48	1
CNPB#PARMLEN	48	6A
CONPARMBLOCK	0	
CONPARMBLOCK_LEN	48	6A
DSCPARMBLOCK	0	
DSCPARMBLOCK_LEN	8	18
DSPB_EYECATCHER	0	
DSPB_LENGTH	4	
DSPB_TOKEN	8	
DSPB_VERSION	7	
DSPB#CATCHER	8	E2D7C2
DSPB#CURVER	8	1
DSPB#PARMLEN	8	18
GETPARMBLOCK	0	
GETPARMBLOCK_LEN	38	40
GTPB_BUFFER@	38	
GTPB_BUFFERLENGTH	20	
GTPB_EARLY30S5	8	20
GTPB_EYECATCHER	0	
GTPB_FLAGS	8	
GTPB_LENGTH	4	
GTPB_MULTIREC	8	80

Table 561. Cross Reference for IFAZSYSP (continued)

Name	Offset	Hex Tag
GTPB_NONBLOCKING	8	10
GTPB_RETURNEDLENGTH	34	
GTPB_TOKEN	10	
GTPB_VERSION	7	
GTPB#CATCHER	38	E3D7C2
GTPB#CURVER	38	1
GTPB#PARMLEN	38	40
QRPB_BUFFER@	18	
QRPB_BUFFERSIZE	10	
QRPB_EXTENDEDYPES	8	80
QRPB_EYECATCHER	0	
QRPB_FLAGS1	8	
QRPB_INMEMNAME	2	
QRPB_INMEMNAMELENGTH	0	
QRPB_INMEMRESOURCE	0	
QRPB_INMEMRESOURCE_LEN	3C	44
QRPB_INMEMTYPES	1C	
QRPB_LENGTH	4	
QRPB_RETURNEDIMRS	C	
QRPB_VERSION	7	
QRPB#CATCHER	18	D9D7C2
QRPB#CURVER	18	1
QRPB#INMEMPARMLEN	3C	44
QRPB#PARMLEN	18	20
QRPBX_INMEMNAME	2	
QRPBX_INMEMNAMELENGTH	0	
QRPBX_INMEMRESOURCE_EXT	0	
QRPBX_INMEMRESOURCE_EXT_LEN	20	120
QRPBX_INMEMTYPES	20	
QRPBX#INMEMPARMLEN	20	120
QRYPARMBLOCK	0	
QRYPARMBLOCK_LEN	18	20

## IFBDCBDC information

### IFBDCBDC heading information

<b>Common name:</b>	Mapping for Logrec Data CSECT in nucleus resident module IFBDCB01
<b>Macro ID:</b>	IFBDCBDC
<b>DSECT name:</b>	IFBDCBDC



**Owning component:** System Environmental Recording - Logrec (SCOBR)

**Eye-catcher ID:** None

**Storage attributes:** Virtual Storage: Data Only Module (IFBDCB01)  
Residency: Nucleus

**Size:** 408 bytes ('198'X)  
Frequency: 1 per MVS image

**Created by:** Permanently resides in the nucleus

**Pointed to by:** CVTDCBA - IFBDISP

**Serialization:** None

**Function:** This data area maps the nucleus resident DCB and DEB control blocks used for the logrec data set. It is also used for DEMF and NPDA processing.

## IFBDCBDC mapping

Table 562. Structure IFBDCBDC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IFBDCBDC	Logrec Data CSECT Expansion
0	(0)	SIGNED	4	(0)	Word alignment
0	(0)	ADDRESS	4	IFBDCB_LOGCA_PTR	Pointer to Logrec Control Area
4	(4)	ADDRESS	4		Reserved for IBM
8	(8)	ADDRESS	4		Reserved for IBM
12	(C)	SIGNED	4	IFBDEB	START OF DEB
16	(10)	ADDRESS	4	IFBDCB	SPARE POINTER
20	(14)	SIGNED	4	(4)	OVERLAYED DCB
36	(24)	BITSTRING	1		DEB ID FIELD
37	(25)	ADDRESS	3		ADDRESS OF DCB
40	(28)	SIGNED	4	(5)	
60	(3C)	ADDRESS	4		ADDRESS OF SER DEB
64	(40)	BITSTRING	1		FLAG
65	(41)	BITSTRING	3		
68	(44)	SIGNED	4	(2)	
THE FOLLOWING ADDED TO SUPPORT DISPLAY EXCEPTION MONITORING FACILITY (DEMF) - MVS Version 3.7					
356	(164)	SIGNED	4	IFBBUFP	DEMF BUFFER POINTER
360	(168)	SIGNED	4	IFBASCBP	DEMF BNGLOGR ASCB POINTER (MVS)
364	(16C)	SIGNED	4	(4)	DEMF RESERVED
380	(17C)	BITSTRING	1	IFBFLGS1	DEMF FLAGS1
381	(17D)	BITSTRING	1	IFBFLGS2	DEMF FLAGS2
	..1. ....			IFBNPDAA	"X'20'" NPDA MODULE AVAILABLE
382	(17E)	BITSTRING	1	IFBFLGS3	DEMF FLAGS3
383	(17F)	BITSTRING	1	IFBFLGS4	DEMF FLAGS4
384	(180)	SIGNED	4	IFBNPDA	ADDR OF NPDA SVC76 PROCESS PROCESSING MODULE
388	(184)	SIGNED	4	IFBNPDAC	ADDR OF NPDA CLEANUP RTN

Table 562. Structure IFBDCBDC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
392	(188)	SIGNED	4	IFBNWORK	ADDR OF NPDA LOCAL WORKAREA
396	(18C)	SIGNED	2	IFDNLNG	SIZE OF NPDA LOCAL WORKAREA
398	(18E)	SIGNED	2		RESERVED
The following fields are used by SCOBRE to keep a local pointer to the LOGREC data set name and to keep track of the WTO id in order to DOM message IFB080E when necessary.					
400	(190)	ADDRESS	4		Reserved for IBM
404	(194)	SIGNED	4	IFBD080E	IFB080E WTO DOM id - set and cleared in IFBSVC76
404	(194)	X'198'	0	IFBDCB_END	"*" End of the data CSECT

Table 563. Cross Reference for IFBDCBDC

Name	Offset	Hex	Tag
IFBASCBP	168		0
IFBBUFP	164		0
IFBDCB	10		
IFBDCB_END	194		198
IFBDCB_LOGCA_PTR	0		
IFBDCBDC	0		
IFBDEB	C		0
IFBD080E	194		0
IFBFLGS1	17C		0
IFBFLGS2	17D		0
IFBFLGS3	17E		0
IFBFLGS4	17F		0
IFBNPDA	180		0
IFBNPDAA	17D		20
IFBNPDAC	184		0
IFBNWORK	188		0
IFDNLNG	18C		0

## IFBENF36 information

### IFBENF36 programming interface information

The following field is **NOT** programming interface information:

- IFBENF36\_RECORD\_START

### IFBENF36 heading information

**Common name:** Mapping for ENF event code 36 listen exit parameter list  
**Macro ID:** IFBENF36  
**DSECT name:** IFBENF36

**Owning component:** System Environmental Recording - Logrec (SCOBR)

**Eye-catcher ID:** 'ENF36 '  
Offset: 0  
Length: 6

**Storage attributes:** Subpool: 241  
Key: 0  
Residency: Any

**Size:** 20 (dec.) bytes plus size of Logrec record  
Frequency: 1 per Logrec record written to a recording medium. Record type '9x' will not cause the signal to occur.

**Created by:** IFBSVC76

**Pointed to by:** Register 1 on input to ENF event code 36  
Listen exit

**Serialization:** None

**Function:** This data area maps the input parameter list for ENF event code 36 listen exits.

## IFBENF36 mapping

Table 564. Structure IFBENF36

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IFBENF36	, ENF 36 Listen exit parameter list
0	(0)	SIGNED	4	(0)	Word alignment
0	(0)	BITSTRING	1	IFBENF36_HEADER(0)	Start of ENF36 header
0	(0)	CHARACTER	6	IFBENF36_ID	Data Area ID 'ENF36 '
6	(6)	SIGNED	2	IFBENF36_LENGTH	Length of IFBENF36 header, does not include actual Logrec record
8	(8)	CHARACTER	3	IFBENF36_RSVD1	Reserved for IBM
11	(B)	BITSTRING	1	IFBENF36_VERSION	Version of IFBENF36 data area
12	(C)	BITSTRING	4	IFBENF36_QUALIFIER(0)	ENF 36 qualifier
12	(C)	CHARACTER	2	IFBENF36_RSVD2	Reserved for IBM
14	(E)	BITSTRING	1	IFBENF36_BYTE3_QUAL	Qualifier code - record category
15	(F)	BITSTRING	1	IFBENF36_BYTE4_QUAL	Qualifier code - record type
16	(10)	SIGNED	4	IFBENF36_RECORD_LENGTH	Length of Logrec record
16	(10)	X'14'	0	IFBENF36_HEADER_LENGTH	"*-IFBENF36" Assembled length of header not including actual Logrec record
20	(14)	BITSTRING	1	IFBENF36_RECORD_START(0)	Start of Logrec record
Versions of data area					
	....	...1		IFBENF36_LATEST_VERSION	"X'01'" Latest version of mapping
	....	...1		IFBENF36_1ST_VERSION	"X'01'" First version of mapping

Table 565. Cross Reference for IFBENF36

Name	Offset	Hex Tag
IFBENF36	0	
IFBENF36_BYTE3_QUAL	E	
IFBENF36_BYTE4_QUAL	F	
IFBENF36_HEADER	0	
IFBENF36_HEADER_LENGTH	10	14
IFBENF36_ID	0	
IFBENF36_LATEST_VERSION	14	1
IFBENF36_LENGTH	6	
IFBENF36_QUALIFIER	C	
IFBENF36_RECORD_LENGTH	10	
IFBENF36_RECORD_START	14	
IFBENF36_RSVD1	8	
IFBENF36_RSVD2	C	
IFBENF36_VERSION	B	
IFBENF36_1ST_VERSION	14	1

## IFBLOGLB information

### IFBLOGLB heading information

<b>Common name:</b>	Logrec - Log Stream Log Block
<b>Macro ID:</b>	IFBLOGLB
<b>DSECT name:</b>	IFBLOGLB, Loglb_current_record
<b>Owning component:</b>	System Environmental Recording - Logrec (SCOBR)
<b>Eye-catcher ID:</b>	'IFBLOGLB' Offset: 0 Length: 8
<b>Storage attributes:</b>	Subpool: based on IXGBRWSE invoker Key: based on IXGBRWSE invoker Residency: ANY
<b>Size:</b>	4096 bytes (1 page) IFBLOGLB -- X'001C' bytes
<b>Created by:</b>	IFBLOGBF - LOGREC Log Stream Log Block Buffering Routine
<b>Pointed to by:</b>	contained within the buffer specified on the BUFFER= parameter of the IXGBRWSE macro service
<b>Serialization:</b>	None
<b>Function:</b>	Mapping contains the format of a Logrec log stream log block.

## IFBLOGLB mapping

Table 566. Structure IFBLOGLB

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	28	IFBLOGLB	Logrec log stream log block
0	(0)	CHARACTER	28	LOGLB	Common name
0	(0)	CHARACTER	28	LOGLB_HEADER	
0	(0)	CHARACTER	8	LOGLB_ID	Eye Catcher
8	(8)	UNSIGNED	2	LOGLB_VERS	Version number
10	(A)	SIGNED	2	LOGLB_HEADER_LEN	Length of the header
12	(C)	CHARACTER	8	LOGLB_SYSTEM_NAME	System name where log block originated
20	(14)	SIGNED	4	LOGLB_NUM_REC_IN_BLOCK	The number of records within this log block
24	(18)	SIGNED	4	LOGLB_DATA_LEN	Length of all the records in the block excluding the Loglb_header
28	(1C)	CHARACTER	0	LOGLB_DATA	The variable length records in the format described by Loglb_current_record

Table 567. Structure LOGLB\_CURRENT\_RECORD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	*	LOGLB_CURRENT_RECORD	
0	(0)	SIGNED	4	LOGLB_REC_LEN	Length of record text excluding this len field
4	(4)	CHARACTER	*	LOGLB_REC_TEXT	Variable length LOGREC record

Table 568. Constants for IFBLOGLB

Len	Type	Value	Name	Description
These constants are used with the IFBLOGLB mapping				
8	CHARACTER	IFBLOGLB	LOGLB_EYE_CATCHER	The Loglb identifier
2	DECIMAL	1	LOGLB_VERSION	The version of the Loglb

Table 569. Cross Reference for IFBLOGLB

Name	Offset	Hex	Tag
IFBLOGLB	0		
LOGLB	0		
LOGLB_CURRENT_RECORD	0		
LOGLB_DATA	1C		
LOGLB_DATA_LEN	18		
LOGLB_HEADER	0		
LOGLB_HEADER_LEN	A		
LOGLB_ID	0		
LOGLB_NUM_REC_IN_BLOCK	14		
LOGLB_REC_LEN	0		
LOGLB_REC_TEXT	4		
LOGLB_SYSTEM_NAME	C		

Table 569. Cross Reference for IFBLOGLB (continued)

Name	Offset	Hex Tag
LOGLB_VERS	8	

## IFBNTASM information

### IFBNTASM programming interface information

IFBNTASM is a programming interface.

### IFBNTASM heading information

<b>Common name:</b>	System Level DSNLOGREC Name/Token Retrieve and ENF 49 signal mapping
<b>Macro ID:</b>	IFBNTASM
<b>DSECT name:</b>	IFBNT_TOKEN and IFBNT_LOGREC
<b>Owning component:</b>	System Environmental Recording - LOGREC (SCOBR)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Determined by invoker of IEANTRT or 241 for ENF 49 signals Key: Determined by invoker of IEANTRT or 0 for ENF 49 signals Residency: Any
<b>Size:</b>	IFBNT_TOKEN area is 16 (dec.) bytes, and IFBNT_LOGREC area is 72 (dec.) bytes Frequency: For DSNLOGREC name/token retrieve IFBNT_TOKEN: 1 per invoker of IEANTRT IFBNT_LOGREC: 1 per MVS image For ENF 49 signal: IFBNT_TOKEN: 1 per SETLOGRC command when Logrec medium changed IFBNT_LOGREC: 1 per SETLOGRC command when Logrec medium changed
<b>Created by:</b>	Invoker of the system level DSNLOGREC Name/Token service or Logrec SETLOGRC command processor.
<b>Pointed to by:</b>	For DSNLOGREC name/token retrieve request: TOKEN parameter from IEANTRT contains IFBNT_TOKEN area, and IFBNT_LOGREC_NAME_PTR points to IFBNT_LOGREC area. For ENF event code 49 signal: Register 1 points to a word which contains the address of the IFBNT_TOKEN area.
<b>Serialization:</b>	None
<b>Function:</b>	Provides a mapping for the use of system level DSNLOGREC Name/Token Retrieve service from 390 Assembly Language, and the mapping for the ENF event code 49 listen exit input parameter list.

## IFBNTASM mapping

Table 570. Structure IFBNT\_TOKEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBNT_TOKEN	, Token area
0	(0)	ADDRESS	4	IFBNT_LOGREC_NAME_PTR	Address of the LOGREC data set name area
4	(4)	BITSTRING	1	IFBNT_VERSION	Version of IFBNT_LOGREC
5	(5)	BITSTRING	1	IFBNT_RESV1	Reserved for IBM
6	(6)	BITSTRING	2	IFBNT_LENGTH	Length of IFBNT_LOGREC area
8	(8)	CHARACTER	8	IFBNT_RESV2	Reserved for IBM
8	(8)	X'10'	0	IFBNT_TOKEN_LEN	"*-IFBNT_TOKEN" Length of IFBNT_TOKEN

Table 571. Structure IFBNT\_LOGREC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBNT_LOGREC	, Pointed to by IFBNT_LOGREC_NAME_PTR
0	(0)	CHARACTER	44	IFBNT_LOGREC_NAME	LOGREC data set name or no data set name string (see comments at end of mapping). Actual data set name is valid when the current recording medium is IFBNT_USE_DATASET
44	(2C)	BITSTRING	1	IFBNT_LOGREC_CURRENT	Current Logrec recording medium
45	(2D)	BITSTRING	1	IFBNT_LOGREC_PREVIOUS	Previous Logrec recording medium
46	(2E)	CHARACTER	26	IFBNT_LOGREC_LOGSTREAM	Logrec log stream name, valid when current recording medium is IFBNT_USE_LOGSTREAM
46	(2E)	X'48'	0	IFBNT_LOGREC_LEN	"*-IFBNT_LOGREC" Length of IFBNT_LOGREC

The following values are used in the following fields:  
 IFBNT\_LOGREC\_CURRENT  
 IFBNT\_LOGREC\_PREVIOUS

.... ..1	IFBNT_USE_DATASET	"X'01'" Logrec data set being used
.... ..1.	IFBNT_USE_LOGSTREAM	"X'02'" Logrec log stream being used
.... ..11	IFBNT_IGNORE_RECORDS	"X'03'" Logrec recording is ignored

If a Logrec data set was not defined during the IPL of the system then the following string will appear in field  
 IFBNT\_LOGREC\_NAME = '...NO.LOGREC.DATA.SET.DEFINED...' '  
 End of DSNLOGREC Retrieve Name/Token Services Include

Table 572. Cross Reference for IFBNTASM

Name	Offset	Hex Tag
IFBNT_IGNORE_RECORDS	2E	3
IFBNT_LENGTH	6	
IFBNT_LOGREC	0	
IFBNT_LOGREC_CURRENT	2C	
IFBNT_LOGREC_LEN	2E	48
IFBNT_LOGREC_LOGSTREAM	2E	
IFBNT_LOGREC_NAME	0	
IFBNT_LOGREC_NAME_PTR	0	
IFBNT_LOGREC_PREVIOUS	2D	

Table 572. Cross Reference for IFBNTASM (continued)

Name	Offset	Hex Tag
IFBNT_RESV1	5	
IFBNT_RESV2	8	
IFBNT_TOKEN	0	
IFBNT_TOKEN_LEN	8	10
IFBNT_USE_DATASET	2E	1
IFBNT_USE_LOGSTREAM	2E	2
IFBNT_VERSION	4	

## IGVCAUB information

### IGVCAUB programming interface information

IGVCAUB is a programming interface.

### IGVCAUB heading information

<b>Common name:</b>	Common Area User Block
<b>Macro ID:</b>	IGVCAUB
<b>DSECT name:</b>	CAUB
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	CAUB Offset: 8 Length: 4
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above 16M line
<b>Size:</b>	CAUB_RUCSA_EXTENSION -- X'0018' bytes CAUB -- X'0068' bytes
<b>Created by:</b>	IGVGCAS (VSM address space creation module). IEAIPL04 (VSM IPL Resource Initialization Module). IGVRQVR2 (VSM cell definition). IGVSFBTB (VSMDATA summary/detail table). IGVSFOWN (VSMDATA OWNCOMM report). IGVVSCEL (VSM cell processing).



**Pointed to by:**

VAB\_CAUB  
VAB\_AS\_CAUB  
GDASCAUB  
GDAFCAUB  
GDALCAUB  
CAUB\_Unowned\_Next  
CAUB\_Unowned\_Prev  
Details are as follows:  
Address Space CAUB is pointed to by:  
ASCBASSB -> ASSBVAB -> VAB\_AS\_CAUB -> CAUB  
System CAUB is pointed to by:  
GDASCAUB -> CAUB  
ASCBASSB -> ASSBVAB -> VAB\_CAUB points to:  
- Address Space CAUB  
While no job is running  
- Job CAUB  
While a job is running  
- System CAUB  
After address space end but before the ASCB  
is re-initialized  
Unknown CAUB (aka "no detail" CAUB) is pointed to by:  
GDAUCAUB -> CAUB  
CAUBs on the Unowned Queue (aka "owner gone" CAUBs)  
are anchored by:  
GDAFCAUB - Address of 1st CAUB on the unowned queue.  
(GDAFCAUB has the address of itself when the  
queue is empty.)  
GDALCAUB - Address of last CAUB on the unowned queue.  
(GDALCAUB is not valid and should not be used  
when the queue is empty.)  
Unowned Queue is double headed, double threaded, circular.

**Serialization:**

When writing to the CAUB, VSM uses the VSMFIX lock.  
When monitor programs read the CAUB, it would be best to do  
so with no serialization. (This is because holding the lock  
could impact system performance.) Note that this means that  
the CAUB could be freemained while being read. The CAUB may  
also be put on the queue of free CAUBs while being read.  
Monitors will need to handle this (e.g., a recovery routine  
could catch the reference to a freemained CAUB, and  
encountering a CAUB on the free queue could be taken as the  
end of the queue being run.) A CAUB on the free queue has a  
CAUB\_ID field that is not 'CAUB'.

**Function:**

Lists the number of bytes of common storage that are 'in use'.  
(Bytes that have been given to a caller of GETMAIN or STORAGE  
OBTAIN are 'in use'.)

The CAUB\_Level field will change if the CAUB changes.

Users should interrogate the CAUB\_Level field, and ignore  
CAUBs with an unrecognized level.

There are 5 types of CAUBs:

-\*- The job CAUB is a CAUB that describes storage owned by a  
job. In general, a job owns all the common storage that is  
GETMAINED when the address space in which the job runs is  
the home address space. (See the "Owner" keyword on the  
Getmain, Storage and Cpool macros for information about  
when the home address space is not the owner.)

-\*- The address space CAUB describes storage obtained by an  
initiator address space when it is between jobs. For  
example, storage that is GETMAINED between the end of a  
batch job and the beginning of the next batch job is  
collected in the address space CAUB.

-\*- The system CAUB describes storage owned by the system. The  
system owns common storage that was GETMAINED during times  
when it would be impossible or misleading to assign  
ownership to the job running in the home address space.  
For example, storage obtained during IPL, before any  
address spaces exist, is owned by the system. In addition,  
some operating system components explicitly indicate that  
the storage they obtain should be owned by the system.

-\*- The "No Detail" CAUB describes common storage that was in  
use at the instant CSA tracking was stopped or started.

-\*- An "Owner Gone" CAUB describes storage owned by a job that  
has terminated. These CAUBs are linked together on the  
"unowned" queue.

CAUBs may have a CAUB RUCSA extension when a RUCSA is defined.

The Caub\_Rucsa\_Ext\_Addr is used to indicate if a RUCSA  
extension is provided.

## IGVCAUB mapping

Table 573. Structure CAUB

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CAUB	Common area user block.
0	(0)	CHARACTER	52	CAUB_HEADER	Header for CAUB_Proper. (CAUB_Proper has the counts, CAUB_Header has owner information.)
Link fields pertaining to the unowned queue. CAUBs are put on this queue when a job or address space terminates holding some common storage. These fields are the first thing in the CAUB because that makes queue manipulation a little easier.					
0	(0)	ADDRESS	4	CAUB_UNOWNED_NEXT	Address of the next CAUB on the 'unowned' queue.
4	(4)	ADDRESS	4	CAUB_UNOWNED_PREV	Address of the previous CAUB on the 'unowned' queue. This is double threaded to make it easy to remove elements from the middle.
Fields that identify this control block as a CAUB.					
8	(8)	CHARACTER	4	CAUB_ID	Char string 'CAUB' - eyecatcher.

Table 573. Structure CAUB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	SIGNED	2	CAUB_LEVEL	Indicates the level of the CAUB. The value can be used to determine how the CAUB is mapped. CAUB_LEVEL_K1 indicates the HBB4430 level of this macro. Equate value CAUB_LEVEL_KCURRENT can be used to determine the most recent update level.
14	(E)	CHARACTER	2		Reserved
Fields that identify the job that owns some common storage. Part of the process of completing a common area GETMAIN requires that VSM decide which CAUB describes the job doing the GETMAIN. Which CAUB is chosen depends on how the GETMAIN was coded. The coder can choose to have VSM update the counts in the CAUB associated with the home, primary or secondary address space. The coder can also specify that VSM use the 'system CAUB', which is associated with no address space.					
16	(10)	CHARACTER	36	CAUB_CALLERID	
16	(10)	CHARACTER	4	CAUB_ASN_WORD	Whole register is stored here, but only bits 16-31 are meaningful.
16	(10)	CHARACTER	2		Reserved, set to 0 when CAUB_ASN is stored.
18	(12)	BITSTRING	2	CAUB_ASN	Address Space Number (ASN) identifying the address space that is associated with the job that owns some common storage. Note: '00'X here means that this CAUB tracks 'system' storage, which is not associated with any address space. This field comes from ASCBASID.
20	(14)	CHARACTER	8	CAUB_JOBNAME	Name of the job that was active when the storage was obtained. This is taken from ASCBJBNI or ASCBJBNS.
28	(1C)	CHARACTER	8	CAUB_JOBID	Items from the JSAB that identify the owning job. These are obtained via the IAZXJSAB macro.
28	(1C)	CHARACTER	8	CAUB_WORKID	Work Unit ID, aka Job ID. This comes from the JSAB. (There is 1 'valid' JSAB per address space) This ID is NOT unique within an instance of MVS when running in a 'Poly-JES' environment. Also, this ID is null for entities started under the master scheduler subsystem (e.g., some system address spaces, some started tasks).
Fields pertaining to the unowned queue. CAUBs are put on this queue when a job or address space terminates holding some common storage. These fields are undefined (and probably 0) for CAUBs describing jobs that have not terminated.					
36	(24)	CHARACTER	4	CAUB_UNOWNED_DATE	Date when the owner of this common storage terminated. This is undefined (and probably 0) for active jobs. Format is decimal, 0YYYYDDD, YYYY=Year, DDD=Day (Julian). For example, 01992001 represents Jan 1, 1992. (See documentation of the 'TIME' macro.)

Table 573. Structure CAUB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	CHARACTER	4	CAUB_UNOWNED_TIME	Time when the owner of this common storage terminated. This is undefined (and probably 0) for active jobs. (Packed decimal, HHMMSSth, HH=Hours, MM=Minutes, SS=Seconds, t=tenths, h=hundredths See documentation of the 'TIME' macro.)
Various flags.					
44	(2C)	CHARACTER	4	CAUB_FLAGS	
44	(2C)	CHARACTER	1	CAUB_TYPE	Indicates if this CAUB is a Job CAUB, an address space CAUB, or a system CAUB, and indicates whether this CAUB is on the unowned queue. Note that there is no bit to identify the unknown (aka the "no detail") Caub.
Bit definitions:					
		1... ....		CAUB_UNOWNED	"X'80'" If on, this CAUB is on the unowned queue. Needed by FREEMAIN, so it can determine whether to free this CAUB if the counts are 0. A CAUB on the unowned queue is still marked as a Job or Address Space CAUB.
No more than one of the following bits should be on. Any other combination indicates a VSM bug.					
		.1.. ....		CAUB_SYSTEM	"X'40'" If on, this CAUB is the 'system' CAUB. Common storage obtained by system functions should be charged to the system. Thus, the job CAUB is sometimes really the system CAUB. CAUB_System exists to make it easy to tell when this is the case.
		..1. ....		CAUB_JOB	"X'20'" If on, this CAUB is a 'job CAUB'. (See "Function" section for more information on 'job CAUB').
		...1 ....		CAUB_ADDRESSSPACE	"X'10'" If on, this CAUB is an 'address space CAUB'. See "Function" section for more information on 'address space CAUB'
45	(2D)	CHARACTER	1	CAUB_DATAINCOMPLETE	Bits indicating that tracking was not enabled at some point during the life of this CAUB
Bit definitions:					
		1... ....		CAUB_CSADATAINCOMPLETE	"X'80'" If on, tracking for CSA data was not enabled at some point during the life of this CAUB. This includes RUCSA if it exists.
		.1.. ....		CAUB_SQADATAINCOMPLETE	"X'40'" If on, tracking for SQA data was not enabled at some point during the life of this CAUB
48	(30)	ADDRESS	4	CAUB_RUCSA_EXT_ADDR	Address of the Caub_Rucsa_Extension or zero if no extension exists
The fields below contain a count of how much common storage is being used by the entity described in CAUB_Header.					
52	(34)	CHARACTER	16	CAUB_COUNTS	

Table 573. Structure CAUB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
52	(34)	SIGNED	4	CAUB_CSA_BELOW	Amount of GETMAINED non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header. For the system CAUB (pointed to by GDASCAUB), this includes the entire size of the non-extended RUCSA. Subtract GDA_RUCSA_SIZE to get the CSA-only allocation.
56	(38)	SIGNED	4	CAUB_SQA_BELOW	Amount of GETMAINED non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header.
60	(3C)	SIGNED	4	CAUB_CSA_ABOVE	Amount of GETMAINED extended CSA storage, in bytes, owned by the entity described in CAUB_Header. For the system CAUB (pointed to by GDASCAUB), this includes the entire size of the extended RUCSA. Subtract GDA_ERUCSA_SIZE to get the CSA-only allocation.
64	(40)	SIGNED	4	CAUB_SQA_ABOVE	Amount of GETMAINED extended SQA storage, in bytes, owned by the entity described in CAUB_Header.
68	(44)	CHARACTER	4		
72	(48)	CHARACTER	16	CAUB_PROTECT_COUNTS	
72	(48)	SIGNED	4	CAUB_PROTECT_CSA_BELOW	Amount of GETMAINED non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
76	(4C)	SIGNED	4	CAUB_PROTECT_SQA_BELOW	Amount of GETMAINED non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
80	(50)	SIGNED	4	CAUB_PROTECT_CSA_ABOVE	Amount of GETMAINED extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
84	(54)	SIGNED	4	CAUB_PROTECT_SQA_ABOVE	Amount of GETMAINED extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
88	(58)	CHARACTER	16	CAUB_DETECT_COUNTS	
88	(58)	SIGNED	4	CAUB_DETECT_CSA_BELOW	Amount of GETMAINED non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
92	(5C)	SIGNED	4	CAUB_DETECT_SQA_BELOW	Amount of GETMAINED non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
96	(60)	SIGNED	4	CAUB_DETECT_CSA_ABOVE	Amount of GETMAINED extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
100	(64)	SIGNED	4	CAUB_DETECT_SQA_ABOVE	Amount of GETMAINED extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
100	(64)	X'68'	0	CAUB_LEN	"*-CAUB"

Table 574. Structure CAUB\_RUCSA\_EXTENSION

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CAUB_RUCSA_EXTENSION	RUCSA extension if one exists

Table 574. Structure CAUB\_RUCSA\_EXTENSION (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	SIGNED	4	CAUB_RUCSA_BELOW	Amount of GETMAINED non-extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header.
4	(4)	SIGNED	4	CAUB_RUCSA_ABOVE	Amount of GETMAINED extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header.
8	(8)	SIGNED	4	CAUB_RUCSA_PROTECT_BELOW	Amount of GETMAINED non-extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
12	(C)	SIGNED	4	CAUB_RUCSA_PROTECT_ABOVE	Amount of GETMAINED extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
16	(10)	SIGNED	4	CAUB_RUCSA_DETECT_BELOW	Amount of GETMAINED non-extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
20	(14)	SIGNED	4	CAUB_RUCSA_DETECT_ABOVE	Amount of GETMAINED extended RUCSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
20	(14)	X'C1E4C2'	0	CAUB_ID_K	"C'CAUB'" Eyecatcher.
20	(14)	X'0'	0	CAUB_ASN_KSYSTEM	"0" When CAUB_ASN contains this value, there is no owning address space - the storage is owned by the 'system'.
20	(14)	X'1'	0	CAUB_LEVEL_KCURRENT	"1" Most recent level of the CAUB.
Constants are declared for every existing level of the CAUB.					
20	(14)	X'1'	0	CAUB_LEVEL_K1	"1" HBB4430 level
20	(14)	X'18'	0	CAUB_RUCSA_EXTENSION_LEN	"*-CAUB_RUCSA_EXTENSION"

Table 575. Cross Reference for IGVCAUB

Name	Offset	Hex Tag
CAUB	0	
CAUB_ADDRESSSPACE	2C	10
CAUB_ASN	12	
CAUB_ASN_KSYSTEM	14	0
CAUB_ASN_WORD	10	
CAUB_CALLERID	10	
CAUB_COUNTS	34	
CAUB_CSA_ABOVE	3C	
CAUB_CSA_BELOW	34	
CAUB_CSADATAINCOMPLETE	2D	80
CAUB_DATAINCOMPLETE	2D	
CAUB_DETECT_COUNTS	58	
CAUB_DETECT_CSA_ABOVE	60	
CAUB_DETECT_CSA_BELOW	58	
CAUB_DETECT_SQA_ABOVE	64	

Table 575. Cross Reference for IGVCaub (continued)

Name	Offset	Hex Tag
CAUB_DETECT_SQA_BELOW	5C	
CAUB_FLAGS	2C	
CAUB_HEADER	0	
CAUB_ID	8	
CAUB_ID_K	14	C1E4C2
CAUB_JOB	2C	20
CAUB_JOBID	1C	
CAUB_JOBNAME	14	
CAUB_LEN	64	68
CAUB_LEVEL	C	
CAUB_LEVEL_KCURRENT	14	1
CAUB_LEVEL_K1	14	1
CAUB_PROTECT_COUNTS	48	
CAUB_PROTECT_CSA_ABOVE	50	
CAUB_PROTECT_CSA_BELOW	48	
CAUB_PROTECT_SQA_ABOVE	54	
CAUB_PROTECT_SQA_BELOW	4C	
CAUB_RUCSA_ABOVE	4	
CAUB_RUCSA_BELOW	0	
CAUB_RUCSA_DETECT_ABOVE	14	
CAUB_RUCSA_DETECT_BELOW	10	
CAUB_RUCSA_EXT_ADDR	30	
CAUB_RUCSA_EXTENSION	0	
CAUB_RUCSA_EXTENSION_LEN	14	18
CAUB_RUCSA_PROTECT_ABOVE	C	
CAUB_RUCSA_PROTECT_BELOW	8	
CAUB_SQA_ABOVE	40	
CAUB_SQA_BELOW	38	
CAUB_SQADATAINCOMPLETE	2D	40
CAUB_SYSTEM	2C	40
CAUB_TYPE	2C	
CAUB_UNOWNED	2C	80
CAUB_UNOWNED_DATE	24	
CAUB_UNOWNED_NEXT	0	
CAUB_UNOWNED_PREV	4	
CAUB_UNOWNED_TIME	28	
CAUB_WORKID	1C	

## IGVDGNB information

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### IGVDGNB programming interface information

**ONLY** the following fields are part of the programming interface information:

- DgnbCbAttrExec
- DgnbCbAttrNonExec

### IGVDGNB heading information

**Common name:** Diagnostic traps indicators

**Macro ID:** IGVDGNB

**DSECT name:** DGNB

**Owning component:** VSM (SC1CH)

**Eye-catcher ID:** DGNB  
Offset: 0  
Length: 4

**Storage attributes:** Key: 0  
Residency: EXTENDED NUCLEUS,Above 16M line

**Size:**

DGNBFREEMAINEDFRAMESINFO	-- X'0050' bytes
DGNBFF31HIGHINFO	-- X'0050' bytes
DGNBCBLOC31	-- X'0004' bytes
DGNBCBLOC64	-- X'0004' bytes
DGNBIEPFILTERINFO	-- X'01F0' bytes
DGNB_RMTR_TEST_DATA	-- X'0018' bytes
DGNBCBATTREXEC	-- X'0004' bytes
DGNBCBATRRNONEXEC	-- X'0004' bytes
DGNB	-- X'0768' bytes
DGNBCBLOCV24	-- X'0004' bytes
DGNBCBLOCV31	-- X'0004' bytes
DGNBAUTOIPL	-- X'0040' bytes
DGNB_TEXCLUDEINFO	-- X'0048' bytes

**Created by:** IGVTRCTL

**Pointed to by:** ECVTDGNB



**Serialization:**

ENQ/DEQ is used so that only 1 SET DIAG command is processing at any time.

Programs which use filters (such as the asid/jobname filter routine) must use the following protocol to ensure that a concurrent partial update of the DGNB by SET DIAG processing does not allow them to process a trap in a case where it was not requested.

Make a copy of DgnbSyncCnt

IF applicable trap active bit is on THEN

Check other applicable filters

IF filtering passes THEN

IF DgnbSyncCnt = the copy of DgnbSyncCnt THEN

Process the trap

ELSE

Do not process the trap

ELSE

Do not process the trap

ELSE

Do not process the trap

SET DIAG processing must follow the following protocol:

- 1) Turn off all trap active bits.
- 2) Increment DgnbSyncCnt.
- 3) Update the filters.
- 4) Turn on the new trap active bits.

**Function:**

The DGNB indicates which diagnostic traps are active.

**IGVDGNB mapping**

Table 576. Structure DGNB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNB	
0	(0)	CHARACTER	4	DGNBID	Control block id
4	(4)	CHARACTER	2	DGNBVER	Version number
6	(6)	CHARACTER	1	DGNBFLAGS	Flags
6	(6)	BITSTRING	1	DGNBFLAG1	First flag byte
6	(6)	BITSTRING	1		Reserved
7	(7)	CHARACTER	1	DGNBRESV1	Reserved
8	(8)	CHARACTER	4	DGNBRESV2	Reserved
12	(C)	ADDRESS	4	DGNBFILTERROUTINEADDR	Address of filter routine, with Amode bit set on
16	(10)	CHARACTER	1024	DGNBZERO	Initialize to zeros
16	(10)	SIGNED	2	DGNBSYNCCNT	Update synchronization count
18	(12)	CHARACTER	2		Reserved
20	(14)	CHARACTER	60	DGNBBITS	
20	(14)	CHARACTER	4	DGNBWORD1	
20	(14)	BITSTRING	1	DGNBBYTE1	

## Bit definitions:

1... ....	DGNB_TEMPMC1	"X'80'" For temporary use
.1.. ....	DGNB_TEMPMC2	"X'40'" For temporary use
..1. ....	DGNB_TEMPMC3	"X'20'" For temporary use
...1 ....	DGNB_TEMPMC4	"X'10'" For temporary use
.... 1...	DGNB_TEMPMC5	"X'08'" For temporary use

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		DGNB_TEMPMC6	"X'04'" For temporary use
		.... ..1.		DGNB_TEMPMC7	"X'02'" For temporary use
		.... ...1		DGNB_TEMPMC8	"X'01'" For temporary use
21	(15)	BITSTRING	1	DGNBBYTE2	
Bit definitions:					
		1... ....		DGNB_TEMPMC9	"X'80'" For temporary use
		.1.. ....		DGNB_TEMPMC10	"X'40'" For temporary use
		..1. ....		DGNB_TEMPMC11	"X'20'" For temporary use
		...1 ....		DGNB_TEMPMC12	"X'10'" For temporary use
		.... 1...		DGNB_TEMPMC13	"X'08'" For temporary use
		.... .1..		DGNB_TEMPMC14	"X'04'" For temporary use
		.... ..1.		DGNB_TEMPMC15	"X'02'" For temporary use
		.... ...1		DGNB_TEMPMC16	"X'01'" For temporary use
22	(16)	BITSTRING	1	DGNBBYTE3	
Bit definitions:					
		1... ....		DGNB_TEMP1	"X'80'" For temporary use
		.1.. ....		DGNB_TEMP2	"X'40'" For temporary use
		..1. ....		DGNB_TEMP3	"X'20'" For temporary use
		...1 ....		DGNB_TEMP4	"X'10'" For temporary use
		.... 1...		DGNB_TEMP5	"X'08'" For temporary use
		.... .1..		DGNB_TEMP6	"X'04'" For temporary use
		.... ..1.		DGNB_TEMP7	"X'02'" For temporary use
		.... ...1		DGNB_TEMP8	"X'01'" For temporary use
23	(17)	BITSTRING	1	DGNBBYTE4	
Bit definitions:					
		1... ....		DGNB_TEMP9	"X'80'" For temporary use
		.1.. ....		DGNB_TEMP10	"X'40'" For temporary use
		..1. ....		DGNB_TEMP11	"X'20'" For temporary use
		...1 ....		DGNB_TEMP12	"X'10'" For temporary use
		.... 1...		DGNB_TEMP13	"X'08'" For temporary use
		.... .1..		DGNB_TEMP14	"X'04'" For temporary use
		.... ..1.		DGNB_TEMP15	"X'02'" For temporary use
		.... ...1		DGNB_TEMP16	"X'01'" For temporary use
24	(18)	CHARACTER	4	DGNBWORD2	
24	(18)	BITSTRING	1	DGNBBYTE5	
Bit definitions:					
		1... ....		DGNB_IGVINITCPPOOL	"X'80'" Initialize Cpool storage
		.1.. ....		DGNB_IGVUNCOND	"X'40'" Make all Freemains and STORAGE RELEASEs unconditional
		..1. ....		DGNB_IGVINITGETMAIN	"X'20'" Initialize GETMAINed storage
		...1 ....		DGNB_IGVNEWPAGE24	"X'10'" Use new page for 24 bit Getmains

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		DGNB_IGVNEWPAGE31	"X'08'" Use new page for 31 bit Getmains
		.... .1..		DGNB_IGVDIAGXXABEND	"X'04'" Issue abend for some DIAGxx processing errors
		.... ..1.		DGNB_IGVNOUSERKEYCSA	"X'02'" Abend requestors of user key CSA
		.... ...1		DGNB_IGVCPPOOLGETV	"X'01'" CPOOL GET validity checking
25	(19)	BITSTRING	1	DGNBBYTE6	
Bit definitions:					
		1... ....		DGNB_IEANOSUSPSYSTRC	"X'80'" Do not suspend system trace when WAIT task is dispatched
		.1.. ....		DGNB_IEASCHEDULEV	"X'40'" SCHEDULE validity checking
		..1. ....		DGNB_IEASPINLOCKV	"X'20'" Spin lock validity checking
		...1 ....		DGNB_IEAINITARSRB	"X'10'" Initialize access registers for SRB dispatch. Also does G64H
		.... 1...		DGNB_IEACMSETV	"X'08'" CMSET validity checking
		.... .1..		DGNB_IEASCHEDULETRACE	"X'04'" SCHEDULE tracing
		.... ..1.		DGNB_IEARISGNLTRACE	"X'02'" RISGNL tracing
		.... ...1		DGNB_IEARPSGNLTRACE	"X'01'" RPSGNL tracing
26	(1A)	BITSTRING	1	DGNBBYTE7	
Bit definitions:					
		1... ....		DGNB_IEANOSDWA	"X'80'" (E)STAE(X) and ARR routines get no SDWA
		.1.. ....		DGNB_IXCRECSTRALLOC	"X'40'" Do symrec recording for structure allocation
		..1. ....		DGNB_IEAINITREGSTASK	"X'20'" Initialize ARs and G64H for task dispatch
		...1 ....		DGNB_IGVINITFREEMAIN	"X'10'" Initialize FREEMAINED storage
		.... 1...		DGNB_IGVCPPOOLFREEQ	"X'08'" Check for already freed CPOOL cell
		.... .1..		DGNB_CNZTRON	"X'04'" Early SETCON TR=ON. Do not use as of HBB7790.
		.... ..1.		DGNB_CNZTRONWITHABEND	"X'02'" Early SETCON TR=OnWithAbend. Do not use as of HBB7790.
		.... ...1		DGNB_IXLDUPOUTOFSYNCH	"X'01'" Initiate CFCC diag cmd for duplex out of synch conditions
27	(1B)	BITSTRING	1	DGNBBYTE8	
Bit definitions:					
		1... ....		DGNB_IOSPROTCAPTUCB	"X'80'" Protect captured views of UCBs
		.1.. ....		DGNB_CSVRENTSP252	"X'40'" Put all private RENT modules in SP252
		..1. ....		DGNB_CSVRENTPROTECT	"X'20'" Page Protect full pages of RENT modules
		...1 ....		DGNB_IXLBREAKDUPLEX	"X'10'" Initiate SVC dump for break duplex condition
		.... 1...		DGNB_CSVSP252ROUNDUP	"X'08'" Round extent sizes of SP 252 modules up to a page multiple
		.... .1..		DGNB_CSVSP228ROUNDUP	"X'04'" Round extent sizes of SP 228 modules up to a page multiple

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		DGNB_CSVSP241ROUNDUP	"X'02'" Round extent sizes of SP 241 modules up to a page multiple
		.... ...1		DGNB_IGVCP00LFREEQPXT	"X'01'" Use HEXDATA as a list of PXT addresses for filtering
28	(1C)	CHARACTER	4	DGNBWORD3	
28	(1C)	BITSTRING	1	DGNBBYTE9	
Bit definitions:					
		1... ....		DGNB_IARSERIALIZEPIN	"X'80'" Serialize RSM PIN processing
		.1.. ....		DGNB_IEFABENDIEF702I	"X'40'" Abend on msg IEF702I
		..1. ....		DGNB_IEASETFRRENV	"X'20'" Check environment (locked, disabled, SRB mode, or EUT FRR mode) when using SETFRR
		...1 ....		DGNB_IEASETFRRAMODE	"X'10'" Abend if SETFRR is used for a super FRR stack in 24-bit addressing mode. IeaSetFrrEnv must also be active for this to take effect.
		.... 1...		DGNB_ASNREUSE	"X'08'" Activate ASNReuse code
		.... .1..		DGNB_IOSDCMMSGs	"X'04'" IOS DCM Messages
		.... ..1.		DGNB_HZSCHECK	"X'02'" Healthchecker checks
		.... ...1		DGNB_ICVTESTEADSCB	"X'01'" Fail OBTAIN and CVA Fxx requests if the data set is EAV eligible and the EADSCB=OK parameter is not specified, regardless of whether the volume is an EAV
29	(1D)	BITSTRING	1	DGNBBYTE10	
Bit definitions:					
		1... ....		DGNB_IOSCCMMSGs	"X'80'" IOS CCM Messages
		.1.. ....		DGNB_IEAMISUSEPMC	"X'40'" Detect misuse of Process Must Complete
		..1. ....		DGNB_BLWEXSNXESDETECT	"X'20'" Excessive spin XES hang detection
		...1 ....		DGNB_IOSFCTCLOG	"X'10'" Ficon CTC log
		.... 1...		DGNB_IGVDAQATCKPT	"X'08'" Make copy of AQATs before doing compression
		.... .1..		DGNB_IXLNORTESUPPRESS	"X'04'"
		.... ..1.		DGNB_IXLDUPLEXWRTCLI	"X'02'"
		.... ...1		DGNB_IXLNOIRTCOMP	"X'01'" Suppress immediate RTC completion
30	(1E)	BITSTRING	1	DGNBBYTE11	
Bit definitions:					
		1... ....		DGNB_IARST64INITGET	"X'80'"
		.1.. ....		DGNB_IARST64INITFREE	"X'40'"
		..1. ....		DGNB_IARCP64INITGET	"X'20'"
		...1 ....		DGNB_IARCP64INITFREE	"X'10'"
		.... 1...		DGNB_IARCP64TRAILER	"X'08'"
		.... .1..		DGNB_IARST64TRAILER	"X'04'"
		.... ..1.		DGNB_IEASYSTRCNOLIMIT	"X'02'"
		.... ...1		DGNB_IOSZDACMSGs	"X'01'"

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
31	(1F)	BITSTRING	1	DGNBBYTE12	
Bit definitions:					
		1... ....		DGNB_IDAVSAMHC	"X'80'"
		.1.. ....		DGNB_IEAZADUNCOND	"X'40'"
		..1. ....		DGNB_IARNOPAGE0DS	"X'20'"
		...1 ....		DGNB_IEARTM2SNAPX22	"X'10'" Tell RTM to capture SNAPTRC for Cancel/Detach
		.... 1...		DGNB_ATRSERCHECKS	"X'08'" Enable serialization hierarchy checks for RRS
		.... .1..		DGNB_IEARTM2NOSNAPTRC	"X'04'" Tell RTM not to capture SNAPTRC at all
		.... ..11		DGNB_TX	"X'03'"
		.... ..1.		DGNB_IEATXABEVERY	"X'02'"
		.... ...1		DGNB_IEATXABRANDOM	"X'01'"
32	(20)	CHARACTER	4	DGNBWORD4	
32	(20)	BITSTRING	1	DGNBBYTE13	
Bit definitions:					
		1... ....		DGNB_IEARTMRECORDALL	"X'80'" Tell RTM to record after calling every recovery routine
		.1.. ....		DGNB_IEADIEFPR	"X'40'" Check that a timer DIE does not clobber any FPR
		..1. ....		DGNB_IBMSYSTEMTEST	"X'20'"
		...1 ....		DGNB_BLWEXSNPROCDIAG	"X'10'" Perform processor diagnostics for excessive spin. Use only as directed by IBM support
		.... 1...		DGNB_BLWEXSNABEND06B	"X'08'" Issue a 06B-04 abend for excessive spin. Use only as directed by IBM support
		.... .1..		DGNB_BLWEXSNXESPROCDG	"X'04'" Excessive spin XES processor diagnostics. Use only as directed by IBM support
		.... ..1.		DGNB_IOSPCIESIMMSGs	"X'02'" IOS PCIE Simulation should issue messages
		.... ...1		DGNB_CSVGGLOBALMT	"X'01'" Load-to-Global but space is memtermable
33	(21)	BITSTRING	1	DGNBBYTE14	
Bit definitions:					
		1... ....		DGNB_IOSHPNOTHROTTL	"X'80'" I/O Supervisor trap - use only as directed by IOS Level 2 support.
		.1.. ....		DGNB_IOSBVOF	"X'40'" I/O Supervisor trap - use only as directed by IOS Level 2 support.
		..1. ....		DGNB_IOSIGNOREPLUSONE	"X'20'" IOS PCIE ignore setting of PlusOne bit
		...1 ....		DGNB_IEFJSSINOVAL	"X'10'" Do not validate SSI initialization routines
		.... 1...		DGNB_IEASLIPCONFIRM	"X'08'" SLIP is to confirm with the user if MODE=HOME is specified without Jobname/Asid
		.... .1..		DGNB_IEFOPZ	"X'04'" IEFOPZ

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		DGNB_ASETRMXNOSAVEA	"X'02'" The ASCRE TRMEXIT is not to be given a savearea when the ASCRE issuer is system key but the ASCRE issuer's task is not, for a non-APF space or for a TSO APF space
		.... ...1		DGNB_IEASYSIRBNOSAVEA	"X'01'" A system key IRB scheduled to a user key task is not to be given a save area even if one is requested
34	(22)	BITSTRING	1	DGNBBYTE15	
Bit definitions:					
		1... ....		DGNB_CSVGTZTRACKDIRL	"X'80'" CSV to use GTZTRACK for directed load/loadhfs
		.1.. ....		DGNB_FPGQRR	"X'40'" zEDC Round Robin queuing requested
		..1. ....		DGNB_IARNONEXEC64	"X'20'"
		...1 ....		DGNB_IEAPERSKUNCOND	"X'10'"
		.... 1...		DGNB_IARVRARSMWAIT	"X'08'"
		.... .1..		DGNB_IGVCPPOOLPARMCHK	"X'04'"
		.... ..1.		DGNB_IEAESTAERETCODE	"X'02'"
		.... ...1		DGNB_IARRUCSAFLT	"X'01'"
35	(23)	BITSTRING	1	DGNBBYTE16	
Bit definitions:					
		1... ....		DGNB_FPZGZIP	"X'80'"
		.1.. ....		DGNB_FPZNIAI	"X'40'"
		..1. ....		DGNB_FPZDISABLELZ77	"X'20'"
		...1 ....		DGNB_FPZDISABLEHIST	"X'10'"
		.... 1...		DGNB_FPZFORCESYNC	"X'08'"
		.... .1..		DGNB_FPZFORCEFIXED	"X'04'"
		.... ..1.		DGNB_FPZDIAG	"X'02'"
		.... ...1		DGNB_IGVNONEXEC31	"X'01'"
36	(24)	CHARACTER	4	DGNBWORD5	
36	(24)	BITSTRING	1	DGNBBYTE17	
Bit definitions:					
		1... ....		DGNB_IEAIRBDELAY	"X'80'"
		.1.. ....		DGNB_IEARTM2SNAPABTM	"X'40'"
		..1. ....		DGNB_IARNOFIXCNTCHK	"X'20'"
		...1 ....		DGNB_FPZDISABLEZLIB	"X'10'"
		.... 1...		DGNB_IEANOTVICOM	"X'08'" This is NOT a DIAGxx trap. Just a bit to be set by testcases. Must own SYSTEM ENQ QNAME=SYSZIGV, RNAME=DGNB_IEANOTVICOM exclusive to set this bit. Reset the bit and release the ENQ when done.
		.... .1..		DGNB_IEACOMMLOCKWORD	"X'04'"
		.... ..1.		DGNB_IEFCHECKSYSZTIOT	"X'02'" DYNALLOC should verify that SYSZTIOT is held when S99TIONQ is set
		.... ...1		DGNB_IEFSYMRECIEF289E	"X'01'" Allocation should cut a symptom record when issuing IEF289E

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
37	(25)	BITSTRING	1	DGNBBYTE18	
Bit definitions:					
		1... ....		DGNB_IEAPRIVATESRBWO	"X'80'" Check for SRB routine in private scheduled without purge TCB. Nucleus entry IEAVES05 gets control on each match. A value in R15 indicates which case: 1 = called by IEAVES00, 2 = called by IEAVSCHA, 3 = called by IEAVSCHD, 4 = called by IEFENFNM If you use this trap without also using the IeaScheduleTrace trap, only the IEFENFNM case is detected.
		.1.. ....		DGNB_IGVALLAES	"X'40'" Build AEs for the jobstep TCB of a single step started task
		..1. ....		DGNB_IGVNOAES	"X'20'" Do not build AEs for the jobstep TCB of a single step started task
38	(26)	BITSTRING	1	DGNBBYTE19	
39	(27)	BITSTRING	1	DGNBBYTE20	
40	(28)	CHARACTER	40		Reserved
80	(50)	CHARACTER	248	DGNBTRAPS	
80	(50)	CHARACTER	72	DGNBJOBS	
80	(50)	SIGNED	2	DGNB#JOBS	Count of how many Jobnames are in list. Maximum is 8.
82	(52)	BITSTRING	1	DGNBJOBSFLAGS	Flags
Bit definitions:					
		1... ....		DGNBJOBNAMEWILD	"X'80'" At least one of the jobnames in the list contains a wildcard
83	(53)	CHARACTER	5		Reserved
88	(58)	CHARACTER	8	DGNBJOBNAME	List of Jobnames
152	(98)	CHARACTER	72	DGNBLENS	
152	(98)	SIGNED	2	DGNB#LENS	Count of how many lengths are in list. Maximum is 8.
154	(9A)	CHARACTER	6		Reserved
160	(A0)	CHARACTER	8	DGNBLENLIST	List of lengths.
160	(A0)	SIGNED	4	DGNBLENSTART	Start length for range.
164	(A4)	SIGNED	4	DGNBLENSTOP	Stop length for range.
224	(E0)	CHARACTER	68	DGNBASIDS	
224	(E0)	SIGNED	2	DGNB#ASIDS	Count of how many Asids are in list. Maximum is 16.
226	(E2)	CHARACTER	2		Reserved
228	(E4)	CHARACTER	4	DGNBASIDLIST	List of Asids.
228	(E4)	SIGNED	2	DGNBASIDSTART	Start Asid for range.
230	(E6)	SIGNED	2	DGNBASIDSTOP	Stop Asid for range.
292	(124)	BITSTRING	2	DGNBKEYBITS	Key N is being traced when DgnbKeyBits(N+1) is on.
294	(126)	BITSTRING	1	DGNBFILTERFLAGS	
Bit definitions:					
		1111 1...		DGNBFILTERACTIVE	"X'F8'"

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		DGNBJOBNAMEFILT	"X'80'" Jobname filtering is active
		.1.. ....		DGNBASIDFILT	"X'40'" Asid filtering is active
		..1. ....		DGNBSUBPOOLFILT	"X'20'" Subpool filtering is active
		...1 ....		DGNBKEYFILT	"X'10'" Key filtering is active
		.... 1...		DGNBLENGTHFILT	"X'08'" Length filtering is active
		.... ...1		DGNBFILTEREXCLUDEPRESENT	"X'01'" The filter information consists of a filter-include area followed immediately by a filter-exclude area
295	(127)	CHARACTER	1		Reserved
296	(128)	BITSTRING	32	DGNBSUBPOOLBITS	Subpool N is being traced when DgnSubpoolBits(N+1) is on.
328	(148)	CHARACTER	248	DGNBPROTECT	PROTECT filters
576	(240)	CHARACTER	248	DGNBDETECT	DETECT filters
824	(338)	CHARACTER	72	DGNBCHARDATALIST	
824	(338)	SIGNED	2	DGNB#CHARDATAS	Count of how many CharData fields are in the list. Maximum is 8.
826	(33A)	CHARACTER	6		Reserved
832	(340)	CHARACTER	8	DGNBCHARDATA	CharData value
896	(380)	CHARACTER	36	DGNBHEXDATALIST	
896	(380)	SIGNED	2	DGNB#HEXDATAS	Count of how many HexData fields are in the list. Maximum is 8.
898	(382)	CHARACTER	2		Reserved
900	(384)	CHARACTER	4	DGNBHEXDATA	HexData value
932	(3A4)	SIGNED	4	DGNBCPOOLFREEQMAX	
936	(3A8)	CHARACTER	100	DGNBSUFFIXES	
936	(3A8)	SIGNED	2	DGNB#SUFFIXES	Count of the number of suffixes. Maximum is 8
938	(3AA)	CHARACTER	2		Reserved
940	(3AC)	CHARACTER	12	DGNBSUFFIX	
940	(3AC)	CHARACTER	4	DGNBSUFFIXTIME	Time when this suffix became the current suffix
Bit definitions:					
		1... ....		DGNBSUFFIXTIMEHIGHBIT	"X'80'"
944	(3B0)	CHARACTER	8	DGNBSUFFIXDATA	Data for DETECT suffix
1036	(40C)	CHARACTER	2	DGNBSTGINIT	Data for storage initialization
1036	(40C)	CHARACTER	1	DGNBSTGINITFLAGS	Flags
Bit definitions:					
		1... ....		DGNBSTGINITSPEC	"X'80'" Storage initialization value was specified
1037	(40D)	CHARACTER	1	DGNBSTGINITVAL	Value for initializing CPOOL GET and Getmain/Storage Obtains
1038	(40E)	BITSTRING	1	DGNBPROTDETON	PROTECT/DETECT ON flags
Bit definitions:					
		1111 ....		DGNBPROTECTON	"X'F0'" PROTECT indicators
		11.. ....		DGNBPROTECTCSAON	"X'C0'"



Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ..		DGNBPROTECTCSA24ON	"X'80'" PROTECT CSA24(ON)
		.1.. ..		DGNBPROTECTCSA31ON	"X'40'" PROTECT CSA31(ON)
		..11 ..		DGNBPROTECTSQAON	"X'30'"
		..1. ....		DGNBPROTECTSQA24ON	"X'20'" PROTECT SQA24(ON)
		...1 ....		DGNBPROTECTSQA31ON	"X'10'" PROTECT SQA31(ON)
		.... 1111		DGNBDETECTON	"X'0F'" DETECT indicators
		.... 11..		DGNBDETECTCSAON	"X'0C'"
		.... 1...		DGNBDETECTCSA24ON	"X'08'" DETECT CSA24(ON)
		.... .1..		DGNBDETECTCSA31ON	"X'04'" DETECT CSA31(ON)
		.... ..11		DGNBDETECTSQAON	"X'03'"
		.... ..1.		DGNBDETECTSQA24ON	"X'02'" DETECT SQA24(ON)
		.... ...1		DGNBDETECTSQA31ON	"X'01'" DETECT SQA31(ON)
1039	(40F)	BITSTRING	1	DGNBPROTDETACTIVE	PROTECT/DETECT Active flags
Bit definitions:					
		1111 ....		DGNBCSAACTIVE	"X'F0'" CSA tracking required
		1... ..		DGNBPROTECTCSA24ACTIVE	"X'80'" PROTECT has been ON for CSA24 at some time since IPL
		.1.. ....		DGNBPROTECTCSA31ACTIVE	"X'40'" PROTECT has been ON for CSA31 at some time since IPL
		..1. ....		DGNBDETECTCSA24ACTIVE	"X'20'" DETECT has been ON for CSA24 at some time since IPL
		...1 ....		DGNBDETECTCSA31ACTIVE	"X'10'" DETECT has been ON for CSA31 at some time since IPL
		.... 1111		DGNBSQAACTIVE	"X'0F'" SQA tracking required
		.... 1...		DGNBPROTECTSQA24ACTIVE	"X'08'" PROTECT has been ON for SQA24 at some time since IPL
		.... .1..		DGNBPROTECTSQA31ACTIVE	"X'04'" PROTECT has been ON for SQA31 at some time since IPL
		.... ..1.		DGNBDETECTSQA24ACTIVE	"X'02'" DETECT has been ON for SQA24 at some time since IPL
		.... ...1		DGNBDETECTSQA31ACTIVE	"X'01'" DETECT has been ON for SQA31 at some time since IPL
1040	(410)	CHARACTER	16	DGNBNONZERO1	Do not init to zeros
1040	(410)	CHARACTER	10	DGNBCHECKREGIONLOSS	
1040	(410)	SIGNED	4	DGNBCHECKREGIONLOSS24	
1044	(414)	SIGNED	4	DGNBCHECKREGIONLOSS31	
1048	(418)	CHARACTER	1	DGNBCHECKREGIONLOSS24UNIT	K, M, or X'00'
1049	(419)	CHARACTER	1	DGNBCHECKREGIONLOSS31UNIT	K, M, or X'00'
1050	(41A)	CHARACTER	2		Reserved
1052	(41C)	CHARACTER	4	DGNBPRIMEPSAVALUE	Test value being used for PrimePSA function
1056	(420)	CHARACTER	20	DGNBZERO2	Init to zeros
1056	(420)	CHARACTER	8	DGNBVSMDETECTMONITORTIME	Time at which last completed IGVGNMN pass was started
1064	(428)	CHARACTER	10	DGNBPRIVATEBUFFER	
1064	(428)	CHARACTER	10	DGNBNEUTRALZONE	
1064	(428)	SIGNED	4	DGNBPRIVATEBUFFER24	
1064	(428)	SIGNED	4	DGNBNEUTRALZONE24	

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1068	(42C)	SIGNED	4	DGNBPRIVATEBUFFER31	
1068	(42C)	SIGNED	4	DGNBNEUTRALZONE31	
1072	(430)	CHARACTER	1	DGNBPRIVATEBUFFER24UNIT	
1072	(430)	CHARACTER	1	DGNBNEUTRALZONE24UNIT	K, M, or X'00'
1073	(431)	CHARACTER	1	DGNBPRIVATEBUFFER31UNIT	
1073	(431)	CHARACTER	1	DGNBNEUTRALZONE31UNIT	K, M, or X'00'
1074	(432)	BITSTRING	1	DGNBOPTIONS1	
Bit definitions:					
		1... ....		DGNBALLOWUSERKEYCSANO	"X'80'" AllowUserKeyCSA(NO) was specified or defaulted
		.1.. ....		DGNBALLOWUSERKEYCSASPEC	"X'40'" AllowUserKeyCSA was specified
		..1. ....		DGNBREUSASIDYES	"X'20'" ReusAsid(Yes) was specified or defaulted
		...1 ....		DGNBREUSASIDSPEC	"X'10'" ReusAsid was specified
		.... 1...		DGNBUSEZOSV1R9RULESNO	"X'08'" UseZOSV1R9Rules(NO) was specified
		.... .1..		DGNBALLOWUSERKEYCADSNO	"X'04'" AllowUserKeyCADS(NO) was specified or defaulted
		.... ..1.		DGNBALLOWUSERKEYCADSSPEC	"X'02'" AllowUserKeyCADS was specified
		.... ...1		DGNBALLOWEARLYRUCSAYES	"X'01'" Allow RUCSA if Security Prod not yet initialized
1075	(433)	BITSTRING	1	DGNBOPTIONS2	
Bit definitions:					
		1... ....		DGNBBESTFITCSA	"X'80'" BestFitCSA was specified
		.1.. ....		DGNBASC BV31YES	"X'40'" ASCBV31(Yes) was specified
		..1. ....		DGNBASC BV31SPEC	"X'20'" ASCBV31 was specified
1076	(434)	CHARACTER	36	DGNBNONZERO2	Do not initialize to zeros
1076	(434)	ADDRESS	4	DGNBCBLOCV24ADDR	
1080	(438)	ADDRESS	4	DGNBCBLOCV31ADDR	
1084	(43C)	ADDRESS	4	DGNBAUTOIPLADDR	
1088	(440)	ADDRESS	4	DGNBCBLOC R31ADDR	
1092	(444)	ADDRESS	4	DGNBCBLOC R64ADDR	
1096	(448)	ADDRESS	4	DGNBFREEMAINEDFRAMESINFOADDR	
1100	(44C)	ADDRESS	4	DGNBFF31HIGHINFOADDR	
1104	(450)	ADDRESS	4	DGNBIEPFILTERINFOADDR	
1108	(454)	ADDRESS	4	DGNB_RMTR_TEST_DATA_ADDR	See DGNB_RMTR_Test_Data
1112	(458)	CHARACTER	8	DGNBZERO3	Initialize to zeros
1112	(458)	CHARACTER	8		Reserved
1120	(460)	CHARACTER	8	DGNBNONZERO3	Do not initialize to zeros
1120	(460)	ADDRESS	4	DGNBCBATTREXECADDR	
1124	(464)	ADDRESS	4	DGNBCBATTRNONEXECADDR	
1128	(468)	CHARACTER	4	DGNBCBLOCV24STG	
1132	(46C)	CHARACTER	4	DGNBCBLOCV31STG	
1136	(470)	CHARACTER	64	DGNBAUTOIPLSTG	
1200	(4B0)	CHARACTER	80	DGNBFREEMAINEDFRAMESJOBSSTG	

Table 576. Structure DGNB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1280	(500)	CHARACTER	80	DGNBFF31HIGHJOBSTG	
1360	(550)	CHARACTER	4	DGNBCBLOC31STG	
1364	(554)	CHARACTER	4	DGNBCBLOC64STG	
1368	(558)	CHARACTER	4	DGNBCBATTREXECSTG	
1372	(55C)	CHARACTER	4	DGNBCBATRRNONEXECSTG	
1376	(560)	CHARACTER	496	DGNBDGNBIEPFILTERINFSTG	
1872	(750)	CHARACTER	24	DGNB_RMTR_TEST_DATA_STG	
1872	(750)	X'768'	0	DGNB_LEN	"*-DGNB"

Table 577. Structure DGNBFREEMAINEDFRAMESINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBFREEMAINEDFRAMESINFO	FreemainedFrames info
0	(0)	BITSTRING	1	DGNBFREEMAINEDFRAMESOPTIONS1	Options byte 1 for FreemainedFrames
Bit definitions:					
		1... ....		DGNBFREEMAINEDFRAMESSPECIFIED	"X'80'" FreemainedFrames statement was specified
		.1... ....		DGNBFREEMAINEDFRAMESNO	"X'40'" FreemainedFrames(NO) was specified
1	(1)	CHARACTER	7		Reserved
80	(50)	X'50'	0	DGNBFREEMAINEDFRAMESINFO_LEN	"*-DGNBFREEMAINEDFRAMESINFO"

Table 578. Structure DGNBFF31HIGHINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBFF31HIGHINFO	
0	(0)	BITSTRING	1	DGNBFF31HIGHOPTIONS1	
Bit definitions:					
		1... ....		DGNBFF31HIGHSPESIFIED	"X'80'"
		.1... ....		DGNBFF31HIGHNO	"X'40'"
1	(1)	CHARACTER	7		
80	(50)	X'50'	0	DGNBFF31HIGHINFO_LEN	"*-DGNBFF31HIGHINFO"

Table 579. Structure DGNBCBLOCV24

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOCV24	
0	(0)	BITSTRING	1	DGNBCBLOCV24BYTE0	
Bit definitions:					
		1... ....		DGNBCBLOCV24IEAFRRSTACKS	"X'80'" I/O and External super FRR stacks and SDWAs
		.1... ....		DGNBCBLOCV24IEFALLOCDYNSTG	"X'40'" Allocation dynamic area storage (ie. GSPACE)

Table 579. Structure DGNBCBLOCV24 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		DGNBCBLOCV24IHAPCCA	"X'20'"
		...1 ....		DGNBCBLOCV24IHALCCA	"X'10'"
		.... 1...		DGNBCBLOCV24IHASDWAFFR	"X'08'" SDWA for AMODE 64 FRRs
		.... .1..		DGNBCBLOCV24IHAASVT	"X'04'"
		.... ..1.		DGNBCBLOCV24IHAXTLST	"X'02'"
		.... ...1		DGNBCBLOCV24CNZSSICB	"X'01'"
1	(1)	BITSTRING	1	DGNBCBLOCV24BYTE1	
Bit definitions:					
		1... ....		DGNBCBLOCV24IEFMASTERSWA	"X'80'" SWA for *MASTER* address space
		.1.. ....		DGNBCBLOCV24IHARMPL	"X'40'" RMPL and save area for task and address space termination resource managers
		..1. ....		DGNBCBLOCV24IWMFORKSPAWNASCBS	"X'20'" Fork/Spawn ASCBs
		...1 ....		DGNBCBLOCV24IWMINITIATORASCBS	"X'10'" WLM initiator ASCBs
		.... 1...		DGNBCBLOCV24IWMAPPENVASCBS	"X'08'" WLM application environment ASCBs
		.... .1..		DGNBCBLOCV24IHAACEE3PTY	"X'04'" SAF 3rd-party ACEEs
2	(2)	CHARACTER	2		Reserved
2	(2)	X'4'	0	DGNBCBLOCV24_LEN	"*-DGNBCBLOCV24"

Table 580. Structure DGNBCBLOCV31

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOCV31	
0	(0)	BITSTRING	1	DGNBCBLOCV31BYTE0	
Bit definitions:					
		1... ....		DGNBCBLOCV31IEFSUBMSTRSWA	"X'80'" SWA for address spaces started with SUB=MSTR which specify IEFBR14 (or nothing) as an initialization routine Not supported!
		.1.. ....		DGNBCBLOCV31IEFMASTERSWA	"X'40'" SWA for *MASTER* address space
		..1. ....		DGNBCBLOCV31IHAASVT	"X'20'"
		...1 ....		DGNBCBLOCV31IHAPCCA	"X'10'"
		.... 1...		DGNBCBLOCV31IHALCCA	"X'08'"
		.... .1..		DGNBCBLOCV31IHAXTLST	"X'04'"
		.... ..1.		DGNBCBLOCV31CNZSSICB	"X'02'"
		.... ...1		DGNBCBLOCV31IHARMPL	"X'01'" RMPL and save area for task and address space termination resource managers
1	(1)	BITSTRING	1	DGNBCBLOCV31BYTE1	
Bit definitions:					
		1... ....		DGNBCBLOCV31IWMFORKSPAWNASCBS	"X'80'" Fork/Spawn ASCBs

Table 580. Structure DGNBCBLOCV31 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1... ....		DGNBCBLOCV31IWMINITIATORASCB	"X'40'" WLM initiator ASCBs
		..1. ....		DGNBCBLOCV31IWMAPPENVASCB	"X'20'" WLM application environment ASCBs
		...1 ....		DGNBCBLOCV31IHAACEE3PTY	"X'10'" SAF 3rd-party ACEEs
2	(2)	CHARACTER	2		Reserved
2	(2)	X'4'	0	DGNBCBLOCV31_LEN	"*-DGNBCBLOCV31"

Table 581. Structure DGNBCBLOC31

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOC31	
0	(0)	BITSTRING	1	DGNBCBLOC31BYTE0	
Bit definitions:					
		1... ....		DGNBCBLOC31IHAWEB	"X'80'" WEB
		.1... ....		DGNBCBLOC31IHAASCB	"X'40'" ASCB
		..1. ....		DGNBCBLOC31RMODE24PROGRAMS	"X'20'" RMode 24 programs
		...1 ....		DGNBCBLOC31RMODE31PROGRAMS	"X'10'" RMode 31 programs
		.... 1...		DGNBCBLOC31PRIVATELSQA	"X'08'" LSQA storage
		.... .1..		DGNBCBLOC31COMMONSQA	"X'04'" SQA storage
1	(1)	CHARACTER	3		Reserved
1	(1)	X'4'	0	DGNBCBLOC31_LEN	"*-DGNBCBLOC31"

Table 582. Structure DGNBCBLOC64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOC64	
0	(0)	BITSTRING	1	DGNBCBLOC64BYTE0	
Bit definitions:					
		1... ....		DGNBCBLOC64IHAWEB	"X'80'" WEB
		.1... ....		DGNBCBLOC64IHAASCB	"X'40'" ASCB
		..1. ....		DGNBCBLOC64RMODE24PROGRAMS	"X'20'" RMode 24 programs
		...1 ....		DGNBCBLOC64RMODE31PROGRAMS	"X'10'" RMode 31 programs
		.... 1...		DGNBCBLOC64PRIVATELSQA	"X'08'" LSQA storage
		.... .1..		DGNBCBLOC64COMMONSQA	"X'04'" SQA storage
1	(1)	CHARACTER	3		Reserved
1	(1)	X'4'	0	DGNBCBLOC64_LEN	"*-DGNBCBLOC64"

Table 583. Structure DGNBAUTOIPL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBAUTOIPL	
0	(0)	CHARACTER	64	DGNBAI	
0	(0)	ADDRESS	4	DGNBAIREGWSATADDR	Registered WSAT
4	(4)	ADDRESS	4	DGNBAIUSERWSATADDR	User WSAT
8	(8)	CHARACTER	24	DGNBAISADINFO	SADMP info.
8	(8)	SIGNED	2	DGNBAISADDEV#	
10	(A)	CHARACTER	2		Reserved
12	(C)	CHARACTER	8	DGNBAISADLOADPARM	
20	(14)	ADDRESS	4	DGNBAISADUCBADDR	
24	(18)	CHARACTER	8	DGNBAISADPINTOKEN	
32	(20)	CHARACTER	24	DGNBAIMVSINFO	MVS info.
32	(20)	SIGNED	2	DGNBAIMVSDEV#	
34	(22)	CHARACTER	2		Reserved
36	(24)	CHARACTER	8	DGNBAIMVSLOADPARM	
44	(2C)	ADDRESS	4	DGNBAIMVSUCBADDR	
48	(30)	CHARACTER	8	DGNBAIMVSPINTOKEN	
56	(38)	BITSTRING	1	DGNBAIAUTOIPLFLAGS	

## Bit definitions:

	1... ....	DGNBAI_SADIPL	"X'80'"	Take a SADMP
	.1.. ....	DGNBAI_MVSREIPL	"X'40'"	Re-IPL z/OS
	..1. ....	DGNBAI_SADSIDDEFAULT	"X'20'"	Use subchannel set id of IPL device for the SAD volume
	...1 ....	DGNBAI_MVSSIDDEFAULT	"X'10'"	Use current subchannel set id for the IPL volume
	.... 1...	DGNBAI_NORMALORCLEARSPECIFIED	"X'08'"	Normal or Clear was specified for IPL of MVS
	.... .1..	DGNBAI_LOADNORMAL	"X'04'"	Use Load Normal instead of Load Clear to IPL MVS
57	(39)	CHARACTER	7	Reserved
57	(39)	X'40'	0	DGNBAUTOIPL_LEN
				"*-DGNBAUTOIPL"

Table 584. Structure DGNB\_TEXCLUDEINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNB_TEXCLUDEINFO	
0	(0)	SIGNED	2	DGNB_#EXCLUDEJOBS	Count of how many jobnames are in this list. Maximum is 8.
2	(2)	BITSTRING	1	DGNB_EXCLUDEJOBNAMEWILD	Indicates jobname contains a wildcard.
3	(3)	CHARACTER	5		Reserved
8	(8)	CHARACTER	8	DGNB_EXCLUDEJOBNAME	List of jobnames
72	(48)	X'48'	0	DGNB_TEXCLUDEINFO_LEN	"*-DGNB_TEXCLUDEINFO"

Table 585. Structure DGNBIEPFILTERINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBIEPFILTERINFO	

Table 585. Structure DGNBIEPFILTERINFO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	248	DGNBIF	Include filters
248	(F8)	CHARACTER	248	DGNBEF	Exclude filters
248	(F8)	X'1F0'	0	DGNBIEPFILTERINFO_LEN	"*-DGNBIEPFILTERINFO"

Table 586. Structure DGNB\_RMTR\_TEST\_DATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNB_RMTR_TEST_DATA	Data for testing RMTRs. The filters are used to identify which SRB(s)' schedules are to be deferred, so that a PurgeDQ can be done to drive the RMTR. Must own SYSTEM ENQ QNAME=SYSZIEA, RNAME=DGNB_RMTR_TEST_DATA exclusive to set this area. To activate: NUCLABEL ENABLE(IEAVES00). To deactivate: NUCLABEL DISABLE(IEAVES00). Reset the area and release the ENQ when done.
0	(0)	SIGNED	4	DGNB_RMTRTD_COUNT	Number of schedules left to be deferred. When 0, no deferral is to be done.
4	(4)	ADDRESS	4	DGNB_RMTRTD_RMTRADDR	The address of the RMTR. No filtering when this is 0.
8	(8)	CHARACTER	8	DGNB_RMTRTD_PURGESTOKEN	The purge STOKEN. When first word is 0, any purge STOKEN is OK. Used only for IEAMSCHD.
16	(10)	CHARACTER	2		Reserved
18	(12)	SIGNED	2	DGNB_RMTRTD_PURGEASID	The purge ASID. When 0, any ASID is OK. Used only for SCHEDULE.
20	(14)	ADDRESS	4	DGNB_RMTRTD_PURGETCBADDR	The purge TCB address. When 0, any purgeTCB address is OK.
20	(14)	X'18'	0	DGNB_RMTR_TEST_DATA_LEN	"*-DGNB_RMTR_TEST_DATA"

Table 587. Structure DGNBCBATTREXEC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBATTREXEC	CBATTR EXECUTABLE() options
0	(0)	BITSTRING	1	DGNBCBATTREXECBYTE0	
Bit definitions:					
		1... ....		DGNBCBATTREXECJCLPARM	"X'80'" JCLPARM
		.1.. ....		DGNBCBATTREXECPRIVATELOW	"X'40'" PrivateLow
		..1. ....		DGNBCBATTREXECPRIVATEHIGH	"X'20'" PrivateHigh
		...1 ....		DGNBCBATTREXECPRIVATELSQA	"X'10'" PrivateLSQA
		.... 1...		DGNBCBATTREXECCOMMONCSA	"X'08'" CommonCSA
		.... .1..		DGNBCBATTREXECCOMMONSQA	"X'04'" CommonSQA
		.... ..1.		DGNBCBATTREXECPRIVATE64BIT	"X'02'" Private64Bit
		.... ...1		DGNBCBATTREXECSHARED64BIT	"X'01'" Shared64Bit
1	(1)	BITSTRING	1	DGNBCBATTREXECBYTE1	
Bit definitions:					
		1... ....		DGNBCBATTREXECCOMMON64BIT	"X'80'" Common64Bit
2	(2)	CHARACTER	2		Reserved

Table 587. Structure DGNBCBATTREXEC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	X'4'	0	DGNBCBATTREXEC_LEN	"*-DGNBCBATTREXEC"

Table 588. Structure DGNBCBATTRNONEXEC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBATTRNONEXEC	
CBATTR NONEXECUTABLE() options					
0	(0)	BITSTRING	1	DGNBCBATTRNONEXECBYTE0	
Bit definitions:					
		1... ....		DGNBCBATTRNONEXECJCLPARM	"X'80'" JCLPARM
		.1.. ....		DGNBCBATTRNONEXECPRIVATELOW	"X'40'" PrivateLow
		..1. ....		DGNBCBATTRNONEXECPRIVATEHIGH	"X'20'" PrivateHigh
		...1 ....		DGNBCBATTRNONEXECPRIVATELSQA	"X'10'" PrivateLSQA
		.... 1...		DGNBCBATTRNONEXECCOMMONCSA	"X'08'" CommonCSA
		.... .1..		DGNBCBATTRNONEXECCOMMONSQA	"X'04'" CommonSQA
		.... ..1.		DGNBCBATTRNONEXECPRIVATE64BIT	"X'02'" Private64Bit
		.... ...1		DGNBCBATTRNONEXECSHARED64BIT	"X'01'" Shared64Bit
1	(1)	BITSTRING	1	DGNBCBATTRNONEXECBYTE1	
Bit definitions:					
		1... ....		DGNBCBATTRNONEXECCOMMON64BIT	"X'80'" Common64Bit
2	(2)	CHARACTER	2		Reserved
2	(2)	X'C7D5C2'	0	DGNBIDC	"C'DGNB'" Dgnb control block id string
2	(2)	X'F0F9'	0	DGNBVERC	"C'09'" Current version
2	(2)	X'F0F1'	0	DGNBVER1	"C'01'" Dgnb version HBB6606
2	(2)	X'F0F2'	0	DGNBVER2	"C'02'" Dgnb version HBB7708
2	(2)	X'F0F3'	0	DGNBVER3	"C'03'" Dgnb version HBB7709
2	(2)	X'F0F4'	0	DGNBVER4	"C'04'" Dgnb version HBB7730
2	(2)	X'F0F5'	0	DGNBVER5	"C'05'" Dgnb version HBB7750
2	(2)	X'F0F6'	0	DGNBVER6	"C'06'" Dgnb version HBB77A0
2	(2)	X'F0F7'	0	DGNBVER7	"C'07'" Dgnb version HBB77B0
2	(2)	X'F0F8'	0	DGNBVER8	"C'08'" Dgnb version HBB77E0
2	(2)	X'F0F9'	0	DGNBVER9	"C'09'" Dgnb version HBB77F0
2	(2)	X'8'	0	DGNBCHARDATAMAX	"8" Maximum number of CharData fields.
2	(2)	X'8'	0	DGNBHEXDATAMAX	"8" Maximum number of HexData fields.
2	(2)	X'8'	0	DGNBJOBMAX	"8" Maximum number of jobname ranges.
2	(2)	X'10'	0	DGNBASIDMAX	"16" Maximum number of asid ranges.



Table 588. Structure DGNBCBATTRNONEXEC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2) X'8'		0	DGNBLENMAX	"8" Maximum number of length ranges.
2	(2) X'8'		0	DGNBSUFFIXESMAX	"8" Maximum number of suffixes
2	(2) X'C7E5C4'		0	DGNBSETEVENTNAME_0T03	"C'IGVD'" This is the first 4-byte segment of an 8-byte constant. Name parameter value for SETEVENT macro
2	(2) X'C1C7C2'		0	DGNBSETEVENTNAME_4T07	"C'IAGB'" This is the second 4-byte segment of an 8-byte constant. Name parameter value for SETEVENT macro
2	(2) X'0'		0	DGNB_FREEMAINEDFRAMES_ENABLEYES	"0"
2	(2) X'1'		0	DGNB_FREEMAINEDFRAMES_ENABLEHIGH	"1"
2	(2) X'2'		0	DGNB_FREEMAINEDFRAMES_ENABLENO	"2"
2	(2) X'4'		0	DGNBCBATTRNONEXEC_LEN	"*-DGNBCBATTRNONEXEC"

Table 589. Cross Reference for IGVDGNB

Name	Offset	Hex	Tag
DGNB	0		
DGNB_#EXCLUDEJOBS	0		
DGNB_ASETRMXNOSAVEA	21		2
DGNB_ASNREUSE	1C		8
DGNB_ATRSERCHECKS	1F		8
DGNB_BLWEXSNABEND06B	20		8
DGNB_BLWEXSNPROC DIAG	20		10
DGNB_BLWEXSNXESDETECT	1D		20
DGNB_BLWEXSNXESPROCDG	20		4
DGNB_CNZTRON	1A		4
DGNB_CNZTRONWITHABEND	1A		2
DGNB_CSVGLOBALMT	20		1
DGNB_CSVGTZTRACKDIRL	22		80
DGNB_CSVRENTPROTECT	1B		20
DGNB_CSVRENTSP252	1B		40
DGNB_CSVSP228ROUNDUP	1B		4
DGNB_CSVSP241ROUNDUP	1B		2
DGNB_CSVSP252ROUNDUP	1B		8
DGNB_EXCLUDEJOBNAME	8		
DGNB_EXCLUDEJOBNAMEWILD	2		
DGNB_FPGQRR	22		40
DGNB_FPZDIAG	23		2
DGNB_FPZDISABLEHIST	23		10
DGNB_FPZDISABLELZ77	23		20

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNB_FPZDISABLEZLIB	24	10
DGNB_FPZFORCEFIXED	23	4
DGNB_FPZFORCESYNC	23	8
DGNB_FPZGZIP	23	80
DGNB_FPZNIAI	23	40
DGNB_FREEMAINEDFRAMES_ENABLEHIGH	2	1
DGNB_FREEMAINEDFRAMES_ENABLENO	2	2
DGNB_FREEMAINEDFRAMES_ENABLEYES	2	0
DGNB_HZSCHECK	1C	2
DGNB_IARCP64INITFREE	1E	10
DGNB_IARCP64INITGET	1E	20
DGNB_IARCP64TRAILER	1E	8
DGNB_IARNOFIXCNTCHK	24	20
DGNB_IARNONEXEC64	22	20
DGNB_IARNOPAGE0DS	1F	20
DGNB_IARRUCSAFLT	22	1
DGNB_IARSERIALIZEPIN	1C	80
DGNB_IARST64INITFREE	1E	40
DGNB_IARST64INITGET	1E	80
DGNB_IARST64TRAILER	1E	4
DGNB_IARVRARSMWAIT	22	8
DGNB_IBMSYSTEMTEST	20	20
DGNB_ICVTESTEADSCB	1C	1
DGNB_IDAVSAMHC	1F	80
DGNB_IEACMSETV	19	8
DGNB_IEACOMMLOCKWORD	24	4
DGNB_IEADIEFPR	20	40
DGNB_IEAESTAERETCODE	22	2
DGNB_IEAINITARSRB	19	10
DGNB_IEAINITREGSTASK	1A	20
DGNB_IEAIRBDELAY	24	80
DGNB_IEAMISUSEPMC	1D	40
DGNB_IEANOSDWA	1A	80
DGNB_IEANOSUSPSYSTRC	19	80
DGNB_IEANOTVICOM	24	8
DGNB_IEAPERSKUNCOND	22	10
DGNB_IEAPRIVATESRBWO	25	80
DGNB_IEARISGNLTRACE	19	2
DGNB_IEARPSGNLTRACE	19	1

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNB_IEARTMRECORDALL	20	80
DGNB_IEARTM2NOSNAPTRC	1F	4
DGNB_IEARTM2SNAPABTM	24	40
DGNB_IEARTM2SNAPX22	1F	10
DGNB_IEASCHEDULETRACE	19	4
DGNB_IEASCHEDULEV	19	40
DGNB_IEASETFRRAMODE	1C	10
DGNB_IEASETFRRENV	1C	20
DGNB_IEASLIPCONFIRM	21	8
DGNB_IEASPINLOCKV	19	20
DGNB_IEASYSIRBNOSAVEA	21	1
DGNB_IEASYSTRCNOLIMIT	1E	2
DGNB_IEATXABEVERY	1F	2
DGNB_IEATXABRANDOM	1F	1
DGNB_IEAZADUNCOND	1F	40
DGNB_IEFABENDIEF702I	1C	40
DGNB_IEFCHECKSYSZTIOT	24	2
DGNB_IEFJSSINOVAL	21	10
DGNB_IEFOPZ	21	4
DGNB_IEFSYMRECIEF289E	24	1
DGNB_IGVALLAES	25	40
DGNB_IGVCPPOOLFREEQ	1A	8
DGNB_IGVCPPOOLFREEQPXT	1B	1
DGNB_IGVCPPOOLGETV	18	1
DGNB_IGVCPPOOLPARMCHK	22	4
DGNB_IGVDAQATCKPT	1D	8
DGNB_IGVDIAGXXABEND	18	4
DGNB_IGVINITCPPOOL	18	80
DGNB_IGVINITFREEMAIN	1A	10
DGNB_IGVINITGETMAIN	18	20
DGNB_IGVNEWPAGE24	18	10
DGNB_IGVNEWPAGE31	18	8
DGNB_IGVNOAES	25	20
DGNB_IGVNONEXEC31	23	1
DGNB_IGVNOUSERKEYCSA	18	2
DGNB_IGVUNCOND	18	40
DGNB_IOSBVOF	21	40
DGNB_IOSCCMMSGs	1D	80
DGNB_IOSDCMMSGs	1C	4

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNB_IOSFCTCLOG	1D	10
DGNB_IOSHPNOTHROTTLE	21	80
DGNB_IOSIGNOREPLUSONE	21	20
DGNB_IOSPCIESIMMSG	20	2
DGNB_IOSPROTCAPTUCB	1B	80
DGNB_IOSZDACMSG	1E	1
DGNB_IXCRECSTRALLOC	1A	40
DGNB_IXLBREAKDUPLEX	1B	10
DGNB_IXLDUPLEXWRTCLI	1D	2
DGNB_IXLDUPOUTOFSYNCH	1A	1
DGNB_IXLNOIRTCCOMP	1D	1
DGNB_IXLNORTESUPPRESS	1D	4
DGNB_LEN	750	768
DGNB_RMTR_TEST_DATA	0	
DGNB_RMTR_TEST_DATA_ADDR	454	
DGNB_RMTR_TEST_DATA_LEN	14	18
DGNB_RMTR_TEST_DATA_STG	750	
DGNB_RMTRTD_COUNT	0	
DGNB_RMTRTD_PURGEASID	12	
DGNB_RMTRTD_PURGESTOKEN	8	
DGNB_RMTRTD_PURGETCBADDR	14	
DGNB_RMTRTD_RMTRADDR	4	
DGNB_TEMPMC1	14	80
DGNB_TEMPMC10	15	40
DGNB_TEMPMC11	15	20
DGNB_TEMPMC12	15	10
DGNB_TEMPMC13	15	8
DGNB_TEMPMC14	15	4
DGNB_TEMPMC15	15	2
DGNB_TEMPMC16	15	1
DGNB_TEMPMC2	14	40
DGNB_TEMPMC3	14	20
DGNB_TEMPMC4	14	10
DGNB_TEMPMC5	14	8
DGNB_TEMPMC6	14	4
DGNB_TEMPMC7	14	2
DGNB_TEMPMC8	14	1
DGNB_TEMPMC9	15	80
DGNB_TEMP1	16	80

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNB_TEMP10	17	40
DGNB_TEMP11	17	20
DGNB_TEMP12	17	10
DGNB_TEMP13	17	8
DGNB_TEMP14	17	4
DGNB_TEMP15	17	2
DGNB_TEMP16	17	1
DGNB_TEMP2	16	40
DGNB_TEMP3	16	20
DGNB_TEMP4	16	10
DGNB_TEMP5	16	8
DGNB_TEMP6	16	4
DGNB_TEMP7	16	2
DGNB_TEMP8	16	1
DGNB_TEMP9	17	80
DGNB_TEXCLUDEINFO	0	
DGNB_TEXCLUDEINFO_LEN	48	48
DGNB_TX	1F	3
DGNB#ASIDS	E0	
DGNB#CHARDATAS	338	
DGNB#HEXDATAS	380	
DGNB#JOBS	50	
DGNB#LENS	98	
DGNB#SUFFIXES	3A8	
DGNBAI	0	
DGNBAI_LOADNORMAL	38	4
DGNBAI_MVSREIPL	38	40
DGNBAI_MVSSIDDEFAULT	38	10
DGNBAI_NORMALORCLEARSPECIFIED	38	8
DGNBAI_SADIPL	38	80
DGNBAI_SADSIDDEFAULT	38	20
DGNBAIAUTOIPLFLAGS	38	
DGNBAIMVSDEV#	20	
DGNBAIMVSINFO	20	
DGNBAIMVSLOADPARM	24	
DGNBAIMVSPINTOKEN	30	
DGNBAIMVSUCBADDR	2C	
DGNBAIREGWSATADDR	0	
DGNBAISADDEV#	8	

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBAISADINFO	8	
DGNBAISADLOADPARM	C	
DGNBAISADPINTOKEN	18	
DGNBAISADUCBADDR	14	
DGNBAIUSERWSATADDR	4	
DGNBALLOWEARLYRUCSAYES	432	1
DGNBALLOWUSERKEYCADSNO	432	4
DGNBALLOWUSERKEYCADSSPEC	432	2
DGNBALLOWUSERKEYCSANO	432	80
DGNBALLOWUSERKEYCSASPEC	432	40
DGNBASCBV31SPEC	433	20
DGNBASCBV31YES	433	40
DGNBASIDFILT	126	40
DGNBASIDLIST	E4	
DGNBASIDMAX	2	10
DGNBASIDS	E0	
DGNBASIDSTART	E4	
DGNBASIDSTOP	E6	
DGNBAUTOIPL	0	
DGNBAUTOIPL_LEN	39	40
DGNBAUTOIPLADDR	43C	
DGNBAUTOIPLSTG	470	
DGNBBESTFITCSA	433	80
DGNBBITS	14	
DGNBBYTE1	14	
DGNBBYTE10	1D	
DGNBBYTE11	1E	
DGNBBYTE12	1F	
DGNBBYTE13	20	
DGNBBYTE14	21	
DGNBBYTE15	22	
DGNBBYTE16	23	
DGNBBYTE17	24	
DGNBBYTE18	25	
DGNBBYTE19	26	
DGNBBYTE2	15	
DGNBBYTE20	27	
DGNBBYTE3	16	
DGNBBYTE4	17	

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBBYTE5	18	
DGNBBYTE6	19	
DGNBBYTE7	1A	
DGNBBYTE8	1B	
DGNBBYTE9	1C	
DGNBCBATTREXEC	0	
DGNBCBATTREXEC_LEN	2	4
DGNBCBATTREXECADDR	460	
DGNBCBATTREXECBYTE0	0	
DGNBCBATTREXECBYTE1	1	
DGNBCBATTREXECCOMMONCSA	0	8
DGNBCBATTREXECCOMMONSQA	0	4
DGNBCBATTREXECCOMMON64BIT	1	80
DGNBCBATTREXECJCLPARM	0	80
DGNBCBATTREXECPRIVATEHIGH	0	20
DGNBCBATTREXECPRIVATELOW	0	40
DGNBCBATTREXECPRIVATELSQA	0	10
DGNBCBATTREXECPRIVATE64BIT	0	2
DGNBCBATTREXECSHARED64BIT	0	1
DGNBCBATTREXECSTG	558	
DGNBCBATTRNONEXEC	0	
DGNBCBATTRNONEXEC_LEN	2	4
DGNBCBATTRNONEXECADDR	464	
DGNBCBATTRNONEXECBYTE0	0	
DGNBCBATTRNONEXECBYTE1	1	
DGNBCBATTRNONEXECCOMMONCSA	0	8
DGNBCBATTRNONEXECCOMMONSQA	0	4
DGNBCBATTRNONEXECCOMMON64BIT	1	80
DGNBCBATTRNONEXECJCLPARM	0	80
DGNBCBATTRNONEXECPRIVATEHIGH	0	20
DGNBCBATTRNONEXECPRIVATELOW	0	40
DGNBCBATTRNONEXECPRIVATELSQA	0	10
DGNBCBATTRNONEXECPRIVATE64BIT	0	2
DGNBCBATTRNONEXECSHARED64BIT	0	1
DGNBCBATTRNONEXECSTG	55C	
DGNBCBLOCR31	0	
DGNBCBLOCR31_LEN	1	4
DGNBCBLOCR31ADDR	440	
DGNBCBLOCR31BYTE0	0	

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBCBLOCR31COMMONSQA	0	4
DGNBCBLOCR31IHAASCB	0	40
DGNBCBLOCR31IHAWEB	0	80
DGNBCBLOCR31PRIVATELSQA	0	8
DGNBCBLOCR31RMODE24PROGRAMS	0	20
DGNBCBLOCR31RMODE31PROGRAMS	0	10
DGNBCBLOCR31STG	550	
DGNBCBLOCR64	0	
DGNBCBLOCR64_LEN	1	4
DGNBCBLOCR64ADDR	444	
DGNBCBLOCR64BYTE0	0	
DGNBCBLOCR64COMMONSQA	0	4
DGNBCBLOCR64IHAASCB	0	40
DGNBCBLOCR64IHAWEB	0	80
DGNBCBLOCR64PRIVATELSQA	0	8
DGNBCBLOCR64RMODE24PROGRAMS	0	20
DGNBCBLOCR64RMODE31PROGRAMS	0	10
DGNBCBLOCR64STG	554	
DGNBCBLOCV24	0	
DGNBCBLOCV24_LEN	2	4
DGNBCBLOCV24ADDR	434	
DGNBCBLOCV24BYTE0	0	
DGNBCBLOCV24BYTE1	1	
DGNBCBLOCV24CNZSSICB	0	1
DGNBCBLOCV24IEAFRRSTACKS	0	80
DGNBCBLOCV24IEFALLOCDYNSTG	0	40
DGNBCBLOCV24IEFMASTERSWA	1	80
DGNBCBLOCV24IHAACEE3PTY	1	4
DGNBCBLOCV24IHAASVT	0	4
DGNBCBLOCV24IHALCCA	0	10
DGNBCBLOCV24IHAPCCA	0	20
DGNBCBLOCV24IHARMPL	1	40
DGNBCBLOCV24IHASDWAFRR	0	8
DGNBCBLOCV24IHAXTLST	0	2
DGNBCBLOCV24IWMAPPENVASCB	1	8
DGNBCBLOCV24IWMFORKSPAWNASC	1	20
DGNBCBLOCV24IWMINITIATORASC	1	10
DGNBCBLOCV24STG	468	
DGNBCBLOCV31	0	



Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBCBLOCV31_LEN	2	4
DGNBCBLOCV31ADDR	438	
DGNBCBLOCV31BYTE0	0	
DGNBCBLOCV31BYTE1	1	
DGNBCBLOCV31CNZSSICB	0	2
DGNBCBLOCV31IEFMASTERSWA	0	40
DGNBCBLOCV31IEFSUBMSTRSWA	0	80
DGNBCBLOCV31IHAACEE3PTY	1	10
DGNBCBLOCV31IHAASVT	0	20
DGNBCBLOCV31IHALCCA	0	8
DGNBCBLOCV31IHAPCCA	0	10
DGNBCBLOCV31IHARMPL	0	1
DGNBCBLOCV31IHAXTLST	0	4
DGNBCBLOCV31IWMAPPENVASCB	1	20
DGNBCBLOCV31IWMFORKSPAWNASC	1	80
DGNBCBLOCV31IWMINITIATORASC	1	40
DGNBCBLOCV31STG	46C	
DGNBCHARDATA	340	
DGNBCHARDATALIST	338	
DGNBCHARDATAMAX	2	8
DGNBCHECKREGIONLOSS	410	
DGNBCHECKREGIONLOSS24	410	
DGNBCHECKREGIONLOSS24UNIT	418	
DGNBCHECKREGIONLOSS31	414	
DGNBCHECKREGIONLOSS31UNIT	419	
DGNBCPOOLFREEQMAX	3A4	
DGNBCSAACTIVE	40F	F0
DGNBDETECT	240	
DGNBDETECTCSA0N	40E	C
DGNBDETECTCSA24ACTIVE	40F	20
DGNBDETECTCSA240N	40E	8
DGNBDETECTCSA31ACTIVE	40F	10
DGNBDETECTCSA310N	40E	4
DGNBDETECTON	40E	F
DGNBDETECTSQA0N	40E	3
DGNBDETECTSQA24ACTIVE	40F	2
DGNBDETECTSQA240N	40E	2
DGNBDETECTSQA31ACTIVE	40F	1
DGNBDETECTSQA310N	40E	1

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBDGNBIEPFILTERINFOSTG	560	
DGNBEF	F8	
DGNBFF31HIGHINFO	0	
DGNBFF31HIGHINFO_LEN	50	50
DGNBFF31HIGHINFOADDR	44C	
DGNBFF31HIGHJOBSSTG	500	
DGNBFF31HIGHNO	0	40
DGNBFF31HIGHOPTIONS1	0	
DGNBFF31HIGHSPECIFIED	0	80
DGNBFILTERACTIVE	126	F8
DGNBFILTEREXCLUDEPRESENT	126	1
DGNBFILTERFLAGS	126	
DGNBFILTERROUTINEADDR	C	
DGNBFLAGS	6	
DGNBFLAG1	6	
DGNBFREEMAINEDFRAMESINFO	0	
DGNBFREEMAINEDFRAMESINFO_LEN	50	50
DGNBFREEMAINEDFRAMESINFOADDR	448	
DGNBFREEMAINEDFRAMESJOBSSTG	4B0	
DGNBFREEMAINEDFRAMESNO	0	40
DGNBFREEMAINEDFRAMESOPTIONS1	0	
DGNBFREEMAINEDFRAMESSPECIFIED	0	80
DGNBHEXDATA	384	
DGNBHEXDATALIST	380	
DGNBHEXDATAMAX	2	8
DGNBID	0	
DGNBIDC	2	C7D5C2
DGNBIEPFILTERINFO	0	
DGNBIEPFILTERINFO_LEN	F8	1F0
DGNBIEPFILTERINFOADDR	450	
DGNBIF	0	
DGNBJOBMAX	2	8
DGNBJOBNAME	58	
DGNBJOBNAMEFILT	126	80
DGNBJOBNAMEWILD	52	80
DGNBJOBS	50	
DGNBJOBSFLAGS	52	
DGNBKEYBITS	124	
DGNBKEYFILT	126	10

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBLENTHFILT	126	8
DGNBLENLIST	A0	
DGNBLENMAX	2	8
DGNBLEN	98	
DGNBLENSTART	A0	
DGNBLENSTOP	A4	
DGNBNEUTRALZONE	428	
DGNBNEUTRALZONE24	428	
DGNBNEUTRALZONE24UNIT	430	
DGNBNEUTRALZONE31	42C	
DGNBNEUTRALZONE31UNIT	431	
DGNBNONZERO1	410	
DGNBNONZERO2	434	
DGNBNONZERO3	460	
DGNBOPTIONS1	432	
DGNBOPTIONS2	433	
DGNBPRIMEPSAVALUE	41C	
DGNBPRIVATEBUFFER	428	
DGNBPRIVATEBUFFER24	428	
DGNBPRIVATEBUFFER24UNIT	430	
DGNBPRIVATEBUFFER31	42C	
DGNBPRIVATEBUFFER31UNIT	431	
DGNBPROTDEACTIVE	40F	
DGNBPROTDETON	40E	
DGNBPROTECT	148	
DGNBPROTECTCSA0N	40E	C0
DGNBPROTECTCSA24ACTIVE	40F	80
DGNBPROTECTCSA240N	40E	80
DGNBPROTECTCSA31ACTIVE	40F	40
DGNBPROTECTCSA310N	40E	40
DGNBPROTECTON	40E	F0
DGNBPROTECTSQA0N	40E	30
DGNBPROTECTSQA24ACTIVE	40F	8
DGNBPROTECTSQA240N	40E	20
DGNBPROTECTSQA31ACTIVE	40F	4
DGNBPROTECTSQA310N	40E	10
DGNBRESV1	7	
DGNBRESV2	8	
DGNBREUSASIDSPEC	432	10

Table 589. Cross Reference for IGVDGNB (continued)

Name	Offset	Hex Tag
DGNBREUSASIDYES	432	20
DGNBSETEVENTNAME_0T03	2	C7E5C4
DGNBSETEVENTNAME_4T07	2	C1C7C2
DGNBSQAACTIVE	40F	F
DGNBSTGINIT	40C	
DGNBSTGINITFLAGS	40C	
DGNBSTGINITSPEC	40C	80
DGNBSTGINITVAL	40D	
DGNBSUBPOOLBITS	128	
DGNBSUBPOOLFILT	126	20
DGNBSUFFIX	3AC	
DGNBSUFFIXDATA	3B0	
DGNBSUFFIXES	3A8	
DGNBSUFFIXESMAX	2	8
DGNBSUFFIXTIME	3AC	
DGNBSUFFIXTIMEHIGHBIT	3AC	80
DGNBSYNCCNT	10	
DGNBTRAPS	50	
DGNBUSEZOSV1R9RULESNO	432	8
DGNBVER	4	
DGNBVERC	2	F0F9
DGNBVER1	2	F0F1
DGNBVER2	2	F0F2
DGNBVER3	2	F0F3
DGNBVER4	2	F0F4
DGNBVER5	2	F0F5
DGNBVER6	2	F0F6
DGNBVER7	2	F0F7
DGNBVER8	2	F0F8
DGNBVER9	2	F0F9
DGNBVSMDETECTMONITORTIME	420	
DGNBWORD1	14	
DGNBWORD2	18	
DGNBWORD3	1C	
DGNBWORD4	20	
DGNBWORD5	24	
DGNBZERO	10	
DGNBZERO2	420	
DGNBZERO3	458	

## IGVDGNX information

### IGVDGNX heading information

<b>Common name:</b>	Diagnostic traps extraction area
<b>Macro ID:</b>	IGVDGNX
<b>DSECT name:</b>	DGNX
<b>Owning component:</b>	VSM (SC1CH)
<b>Eye-catcher ID:</b>	DGNX Offset: 0 Length: 4
<b>Storage attributes:</b>	Residency: Above 16MB
<b>Size:</b>	X'3C64' bytes
<b>Created by:</b>	IGVDGNXT
<b>Pointed to by:</b>	When IGVDGNXT returns to its caller, the third parameter of the standard parameter list is a fullword containing the address of the DGNX created by IGVDGNXT.
<b>Serialization:</b>	None.
<b>Function:</b>	The DGNX indicates in text format the contents of DIAGxx.

### IGVDGNX mapping

Table 590. Structure DGNX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	DGNX	
0	(0)	CHARACTER	20	DGNXFIXEDAREA	
0	(0)	CHARACTER	4	DGNXID	Control block id
4	(4)	CHARACTER	2	DGNXVER	Version number
6	(6)	UNSIGNED	1	DGNXSUBPOOL	Subpool of DGNX
7	(7)	CHARACTER	1	DGNXRESV1	Reserved
8	(8)	SIGNED	4	DGNXLENGTH	Total length of DGNX, to be used when freeing the DGNX
12	(C)	ADDRESS	4	DGNXTEXTAREAADDR	Address of text area. This should be used to find the beginning of the text area (not Addr(DgnxTextArea)) so the the DgnxFixedArea can be expanded without forcing a recompile
16	(10)	SIGNED	4	DGNXTEXTAREALEN	Number of bytes used in DgnxTextArea
20	(14)	CHARACTER	*	DGNXTEXTAREA	Text area

Table 591. Structure DGNXTEXTLINE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	DGNXTEXTLINE	Text line
0	(0)	UNSIGNED	1	DGNXTEXTLEN	Text data length
1	(1)	CHARACTER	*	DGNXTEXTDATA	Text data

Table 592. Constants for IGVDGNX

Len	Type	Value	Name	Description
4	CHARACTER	DGNX	DGNXIDC	DGNX control block id string
2	CHARACTER	01	DGNXVERC	Current version
2	CHARACTER	01	DGNXVER1	DGNX version HBB7706
4	DECIMAL	70	DGNXMAXLINELEN	Maximum length of a text line (chosen so than a line can be used as a MLWT0 line)

Table 593. Cross Reference for IGVDGNX

Name	Offset	Hex Tag
DGNX	0	
DGNXFIXEDAREA	0	
DGNXID	0	
DGNXLENGTH	8	
DGNXRESV1	7	
DGNXSUBPOOL	6	
DGNXTEXTAREA	14	
DGNXTEXTAREAADDR	C	
DGNXTEXTAREALEN	10	
DGNXTEXTDATA	1	
DGNXTEXTLEN	0	
DGNXTEXTLINE	0	
DGNXVER	4	

## IGVGQAT information

### IGVGQAT heading information

<b>Common name:</b>	GQE Queue Anchor Table
<b>Macro ID:</b>	IGVGQAT
<b>DSECT name:</b>	GQATITBL GQAT GQATENT
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	GQAT Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above 16M line
<b>Size:</b>	GQATITBL -- X'0400' bytes GQAT -- X'0204' bytes GQATENT -- X'0004' bytes

- Created by:** IEAIPL04 & IEAVNP08 build GQAT index tables and GQATs. When the system is fully initialized, a GQAT index table exists that describes 2G, and there exists GQAT table entries for all of SQA and CSA.
- Pointed to by:** GQAT Index Table is pointed to by GDAGQAT\_Index. GQATs are pointed to by entries in the GQAT index table.
- Serialization:** When writing to the GQAT, VSM uses the VSMFIX lock. The only time the GQAT index table is updated is during initialization, so no serialization is needed. When monitor programs read the GQAT, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the GQE pointed to by a GQAT entry could be freemained while being read. The GQE may also be put on the queue of free GQEs while being read. Monitors will need to handle this (e.g., a recovery routine could catch the reference to a freemained GQE, and encountering a GQE on the free queue could be taken as the end of the queue being run.)
- Function:** This macro contains a map of the GQAT and the GQAT Index Table. These two mappings provide the basis for the two-table lookup scheme that VSM uses to keep track of GQEs. (There is 1 GQE for every GETMAINED piece of common storage.) These tables enable VSM to take a virtual address (e.g., the virtual address passed by a FREEMAIN invocation) and find the GQE that represents the storage at that address. Each entry in the GQAT index table points to a GQAT. There are no null entries in the GQAT index table. However, a GQAT index table entry may point to the "dummy GQAT", which is a GQAT all of whose entries point to the GQE that describes 0 bytes at address 0. (This GQE is called the dummy GQE.) Each entry in a GQAT points to a queue of GQEs. (An entry of 0 indicates an empty queue.) Each 64K portion of virtual storage has its own entry in a GQAT. Storage that is in use within a 64K chunk is described by a queue of GQEs pointed to by the GQAT entry for that 64K chunk. The GQEs on this queue are in LIFO order. The GQE queues end with a GQE\_NEXT field of 0. There are 256 entries in the GQAT index table, and the table can map all of storage (2G). Thus, each entry in the GQAT represents 8M of storage (because  $2G/256 = 8M$ ). Each GQAT index table entry points to a GQAT, so GQATs must also represent 8M of storage. GQATs have 128 entries, so each entry represents 64K of virtual storage. The smallest possible GETMAIN is 8 bytes, so the maximum number of GQEs per GQAT entry is 8K, or 8,192 (because  $64K/8=8K$ ).

## IGVGQAT mapping

Table 594. Structure GQATITBL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQATITBL	
0	(0)	ADDRESS	4	GQATINDX	Address of GQAT table
1024	(400)	X'400'	0	GQATITBL_LEN	"*-GQATITBL"

Table 595. Structure GQAT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQAT	
0	(0)	CHARACTER	4	GQATID	Control block identifier
4	(4)	CHARACTER	512	GQATARRAY(0)	Array of 128 elements
4	(4)	CHARACTER	4	GQATNTRY	Each cell of this array contains a pointer to a queue of GQEs.
516	(204)	X'204'	0	GQAT_LEN	"*-GQAT"

Table 596. Structure GQATENT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQATENT	
0	(0)	ADDRESS	4	GQATGQE	Address of the first GQE in a GQE queue. All GQEs on this LIFO queue describe storage whose start address is within the 64K area represented by the GQAT entry.
0	(0)	X'4'	0	GQATENT_LEN	"*-GQATENT"

Table 597. Cross Reference for IGVGQAT

Name	Offset	Hex	Tag
GQAT	0		
GQAT_LEN	204		204
GQATARRAY	4		
GQATENT	0		
GQATENT_LEN	0		4
GQATGQE	0		
GQATID	0		
GQATINDX	0		
GQATITBL	0		
GQATITBL_LEN	400		400
GQATNTRY	4		

## IGVGQE information

### IGVGQE programming interface information

IGVGQE is a programming interface.

### IGVGQE heading information

<b>Common name:</b>	GETMAINED Queue Element.
<b>Macro ID:</b>	IGVGQE
<b>DSECT name:</b>	GQE
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	None



**Storage attributes:** Subpool: 245  
Key: 0  
Residency: Above 16M

**Size:** X'0018' Bytes  
GQE -- X'0018' bytes

**Created by:** IGVGCSA, IGVGSQA

**Pointed to by:** GqeNext  
GqatGQE

**Serialization:** When writing to the GQE, VSM uses the VSMFIX lock. When monitor programs read the GQE, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the GQE could be freemained while being read. The GQE may also be put on the queue of free GQEs while being read, and a GQE may appear to be "out of range" (i.e., it describes storage outside the range of storage described by the anchoring GQAT entry). Monitors will need to handle this (e.g., a recovery routine could catch the reference to a freemained GQE, and encountering a GQE that is "out of range" or on the free queue could be taken as the end of the queue being run.) A GQE on the free queue has a size of 0.

**Function:** Describes a range of virtual storage that was allocated by a single GETMAIN or STORAGE OBTAIN. These blocks, in concert with the CAUB, are used to identify who owns every chunk of GETMAINED common storage.

## IGVGQE mapping

Table 598. Structure GQE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQE	Common area GETMAINED element.
0	(0)	ADDRESS	4	GQE_NEXT	Address of the next GQE.
4	(4)	SIGNED	4	GQE_GMTIME(0)	High order 4 bytes of the TOD clock when the storage was obtained. Last bit incremented every second (approx), 00000000 = Jan 1, 1900.
		1... ....		GQE_GMTIMEHIGHBIT	"X'80'"
8	(8)	ADDRESS	4	GQE_CAUB	Address of the CAUB describing the address space that owns the storage pointed to by GQE_Area.
12	(C)	ADDRESS	4	GQE_AREA(0)	Start address of the allocated area. Bits 0 and 29 to 31 must be masked off before using this value. GQE_AreaMask can be used for this.
12	(C)	SIGNED	2	GQE_AREA_BITS0T015(0)	64K boundary index
12	(C)	BITSTRING	1	GQE_AREA_BYTE0(0)	Storage area flags, this overloads bit 0 of GQE_Size, which can never otherwise be set because all requests must be located less than 2GB.
14	(E)	CHARACTER	1		Bits of the area address
15	(F)	BITSTRING	1	GQE_AREA_BYTE3(0)	Storage Area flags, this overloads bits 29 to 31 of GQE_Area, which can never otherwise be set because all requests are rounded to a doubleword address.

Table 598. Structure GQE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	SIGNED	4	GQE_SIZE(0)	Length of the allocated area, in bytes. This will never be negative. If this field is zero, then this GQE is on the free queue, and is thus not a valid GQE. Bits 0 and 29 to 31 must be masked off before using this value. GQE_SizeMask can be used for this
16	(10)	BITSTRING	1	GQE_SIZE_BYTE0(0)	System size flags, this overloads bit 0 of GQE_Size, which can never otherwise be set because all requests must be less than 2GB in size.
		1... ....		GQE_DETECT_PRIOR_ERROR	"X'80'" A prior error has been detected for this storage, so it should not be reported in error again.
17	(11)	CHARACTER	2		Bits of the storage length
19	(13)	BITSTRING	1	GQE_SIZE_BYTE3(0)	System size flags, this overloads bits 29 to 31 of GQE_Size, which can never otherwise be set because all requests are rounded to a doubleword size.
Note: GQE_Protect and GQE_Detect are mutually exclusive, and will never be set on at the same time.					
		.... .1..		GQE_PROTECT	"X'04'" CSA Protect processing applies to this storage. A 4K suffix has been added by the system. This suffix can not be backed, so any reference to it will cause an unresolved page fault to occur. When this bit is set, 4096 must be added to GQE_Size, with bits 0 and 29 to 31 masked off, to determine the amount of storage actually allocated by the system for the users request.
		.... ..1.		GQE_DETECT_SET	"X'02'" CSA Detect suffix value has been set. This bit can only be set on when GQE_Detect is on. If this bit is not set then do not validate the prefix value. Due to disablement needs, a window exists between logical allocation of storage, building of the GQE, and the actual setting of the suffix value in storage.
		.... ...1		GQE_DETECT	"X'01'" CSA Detect processing applies to this storage. An 8 byte suffix has been added by the system. This suffix will contain a system defined value that can be validated to identify that storage has gone beyond the expected point in storage. When this bit is set, 8 bytes must be added to GQE_Size, with bits 0 and 29 to 31 masked off, to determine the amount of storage actually allocated by the system for the users request.
20	(14)	ADDRESS	4	GQE_RETADDR(0)	The GETMAIN that obtained the storage described by this GQE returned to this address. This is here because we think that it will help identify the module and thus the component that did the GETMAIN. 'FFFFFFF'X here means that this GQE describes storage that was allocated before GETMAIN was available.
20	(14)	BITSTRING	1	GQE_RETADDR_BYTE0	
21	(15)	BITSTRING	2	GQE_RETADDR_BYTES1AND2	

Table 598. Structure GQE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
23	(17)	BITSTRING .... ...1	1	GQE_RETADDR_BYTE3(0) GQE_CSA	"X'01'" If on, indicates that this is a GQE for CSA storage. If off, SQA storage. Instructions are on halfword boundaries, so the last bit of the return address is always zero, so we can use it without really destroying the return address.
24	(18)	BITSTRING	0	GQE_SIZEMASK	"X'7FFFFFFF8'" Mask to AND with GQE_Size to remove the overload bits
24	(18)	BITSTRING	0	GQE_AREAMASK	"X'7FFFFFFF8'" Mask to AND with GQE_Area to remove the overload bits
24	(18)	X'18'	0	GQE_LEN	"*-GQE"

Table 599. Cross Reference for IGVGQE

Name	Offset	Hex	Tag
GQE	0		
GQE_AREA	C		
GQE_AREA_BITS0T015	C		
GQE_AREA_BYTE0	C		
GQE_AREA_BYTE3	F		
GQE_AREAMASK	18	FFFFFF8	
GQE_CAUB	8		
GQE_CSA	17		1
GQE_DETECT	13		1
GQE_DETECT_PRIOR_ERROR	10		80
GQE_DETECT_SET	13		2
GQE_GMTIME	4		
GQE_GMTIMEHIGHBIT	4		80
GQE_LEN	18		18
GQE_NEXT	0		
GQE_PROTECT	13		4
GQE_RETADDR	14		
GQE_RETADDR_BYTES1AND2	15		
GQE_RETADDR_BYTE0	14		
GQE_RETADDR_BYTE3	17		
GQE_SIZE	10		
GQE_SIZE_BYTE0	10		
GQE_SIZE_BYTE3	13		
GQE_SIZEMASK	18	FFFFFF8	

## IGVVAB information

### IGVVAB programming interface information

IGVVAB is a programming interface.

### IGVVAB heading information

<b>Common name:</b>	VSM Address space Block
<b>Macro ID:</b>	IGVVAB
<b>DSECT name:</b>	VAB
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	VAB Offset: 0 Length: 3
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above 16M line
<b>Size:</b>	
<b>Created by:</b>	IGVGCAS, IEAIPLO4
<b>Pointed to by:</b>	ASSBVAB GDASYVAB
<b>Serialization:</b>	VSM uses the VSMFIX lock to serialize the VAB. When monitor programs read the VAB, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the VAB could be freemained while being read. The VAB may also be put on the queue of free VABs while being read. Monitors will need to handle this (e.g., via a recovery routine).
<b>Function:</b>	Provides access to VSM control blocks that are both address space related and in common storage.

### IGVVAB mapping

Table 600. Structure VAB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VAB	, VSM Address space Block
0	(0)	CHARACTER	16	VAB_HEADER(0)	Header for VAB_Proper.
0	(0)	CHARACTER	3	VAB_ID	Character string 'VAB' - eyecatcher This is a product sensitive programming interface.
3	(3)	CHARACTER	1		Reserved.
4	(4)	ADDRESS	4	VAB_CAUB	Address of the Common Area User Block. This is a product sensitive programming interface.

Table 600. Structure VAB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	ADDRESS	4	VAB_AS_CAUB	Address of the Common Area User Block for this Address Space. This is a product sensitive programming interface.
12	(C)	CHARACTER	4		Reserved.
12	(C)	X'E5C1C2'	0	VAB_ID_K	"C'VAB'"
12	(C)	X'10'	0	VAB_LEN	"*-VAB"

## IGVVSMWK information

### IGVVSMWK heading information

<b>Common name:</b>	VSM Work Area
<b>Macro ID:</b>	IGVVSMWK
<b>DSECT name:</b>	VSWK
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	VSWK Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245, 255 Key: 0 Residency: Above 16M line
<b>Size:</b>	VSWK -- X'5152' bytes
<b>Created by:</b>	IGVGCAS (VSM address space creation module), IEAIPL04 (VSM IPL Resource Initialization Module).
<b>Pointed to by:</b>	GDAWRKA, GDAWRKAP, LDAWRKA
<b>Serialization:</b>	VSMFIX LOCK FOR FIXED GLOBAL WORK AREA VSM PAG LOCK FOR PAGEABLE GLOBAL WORK AREA LOCAL LOCK FOR LOCAL WORK AREA
<b>Function:</b>	DESCRIBES THE VSM WORK AREA

### IGVVSMWK mapping

Table 601. Structure VSWK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	5152	VSWK	VSM work area. This is the 'VSWK proper'.
0	(0)	CHARACTER	4	VSWKID	CONTROL BLOCK IDENTIFIER
4	(4)	ADDRESS	4	VSWKSADR	ADDRESS OF STACK AREA
8	(8)	CHARACTER	312	VSWKMAIN	MAIN PORTION OF WORK AREA
8	(8)	CHARACTER	72	VSWKEXTS	EXTERNAL REGISTER SAVE AREA
80	(50)	ADDRESS	4	VSWKGDA	GDA address
84	(54)	ADDRESS	4	VSWKLDA	LDA address
88	(58)	ADDRESS	4	VSWKTCB	TCB ADDRESS

Table 601. Structure VSWK (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
92	(5C)	SIGNED	2	VSWKACDE	EXTERNAL ABEND CODE
94	(5E)	UNSIGNED	1	VSWKARSN	EXTERNAL ABEND REASON CODE
95	(5F)	UNSIGNED	1	VSWKMKEY	Key specified on the macro invocation for SVC 120. Only valid if VSWKMSPEC=ON
96	(60)	CHARACTER	4	VSWKPROC	PROCESSING INFORMATION
96	(60)	UNSIGNED	1	VSWKSVC	EXTERNAL SVC OR BRANCH ENTRY NUMBER
97	(61)	CHARACTER	1	VSWKPFLG	PROCESSING FLAGS
		1... ....		VSWKRFX	0 => DON'T RELEASE VSMFIX LOCK 1 => RELEASE VSMFIX LOCK
		.1.. ....		VSWKENT	0 => BRANCH ENTRY 1 => SVC Entry or PC entry. (VSWKSTOR distinguishes between the two.)
		..1. ....		VSWKGLBL	0 => NOT GLOBAL BRANCH ENTRY 1 => GLOBAL BRANCH ENTRY
		...1 ....		VSWKRPAG	0 => DON'T RELEASE VSMPAG LOCK 1 => RELEASE VSMPAG LOCK
		.... 1...		VSWKRCML	0 => DON'T RELEASE CML LOCK 1 => RELEASE CML LOCK
		.... .1..		VSWKLST	0 => THIS IS NOT A LIST REQUEST 1 => THIS IS A LIST REQUEST
		.... ..1.		VSWKRCUR	0 => THIS IS NOT A RECOVERY RECURSION 1 => THIS IS A RECOVERY RECURSION
		.... ...1		VSWKFSP	0 => THIS IS NOT A SUBPOOL FREEMAIN 1 => THIS IS A SUBPOOL FREEMAIN
98	(62)	UNSIGNED	1	VSWKCKEY	CALLER'S KEY AND STATE
		1111 ....		VSWKKEY	CALLER'S KEY
		1... ....		VSWKKEY8	HIGH ORDER BIT OF KEY
		.... 111.		*	
		.... ...1		VSWKSTAT	0 => CALLER IS IN SUPERVISOR STATE 1 => CALLER IS IN PROBLEM PROGRAM STATE
99	(63)	CHARACTER	1	VSWKFLGS	Flags processing
		1... ....		VSWKSTOR	0 => STORAGE service is not in process 1 => STORAGE service in process
		.1.. ....		VSWKRSET	0 => don't CMSET (RESET) 1 => CMSET (RESET)
		..1. ....		VSWKRFRR	0 => don't delete SETFRR 1 => delete SETFRR
		...1 ....		VSWKRCPU	0 => Don't release CPU lock 1 => Release CPU lock
		.... 1...		VSWKUNUSABLE	0 => Freed Page OK 1 => Freed Page Unusable
		.... .111		*	Reserved
100	(64)	ADDRESS	4	VSWKTOP	TOP OF VSM STACK
104	(68)	ADDRESS	4	VSWKLLST	LENGTH LIST ADDRESS
108	(6C)	ADDRESS	4	VSWKELST	END OF LENGTH LIST
112	(70)	ADDRESS	4	VSWKALST	ADDRESS LIST ADDRESS
116	(74)	ADDRESS	4	VSWKLIST	ADDRESS OF LIST ENTRY BEING PROCESSED
120	(78)	ADDRESS	4	VSWKRCWK	ADDRESS OF RECOVERY WORK AREA
124	(7C)	ADDRESS	4	VSWKSAVE	ADDRESS OF CALLERS REGISTERS
128	(80)	CHARACTER	192	VSWKCOMA	COMMUNICATION AREA

Table 601. Structure VSWK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
320	(140)	CHARACTER	4832	VSWKSTCK	VSM modules use this space for their dynamic areas.
5152	(1420)	CHARACTER	0	*	IEAIPL04 wants this to be on an 8-byte boundary

Table 602. Structure VSWKCOMM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE IsA(VSWKCOMMTYP E)	192	VSWKCOMM	COMMUNICATION AREA
0	(0)	ADDRESS	4	VSWKCOMS	ADDRESS OF SAVED COMMUNICATION AREA OR ZERO
4	(4)	CHARACTER	32	VSWKRQST	REQUEST INFORMATION
4	(4)	UNSIGNED	4	VSWKMAXS	GETMAIN MAXIMUM REQUEST SIZE
		1... ..		VSWKMAXS_BIT0	
8	(8)	UNSIGNED	4	VSWKMINS	GETMAIN MINIMUM REQUEST SIZE
		1... ..		VSWKMINS_BIT0	
12	(C)	UNSIGNED	4	VSWKFSIZ	FREEMAIN REQUEST SIZE
		1... ..		VSWKFSIZ_BIT0	
16	(10)	ADDRESS	4	VSWKFADR	FREEMAIN REQUEST ADDRESS
16	(10)	UNSIGNED	2	VSWKFA01	High bytes
16	(10)	UNSIGNED	1	VSWKFAD0	High Byte
17	(11)	UNSIGNED	1	VSWKFAD1	Byte 1
20	(14)	CHARACTER	10	VSWKSPTT	SUBPOOL TRANSLATION TABLE ENTRY
30	(1E)	CHARACTER	1	VSWKRFLG2	MORE REQUEST FLAGS

The following byte is copied from an interface register. Do not use this byte for anything that is not passed from the macro to VSM service routines.

		1... ..	*		Reserved
		.1.. ....		VSWKMSPEC	'1'B means that the key was specified on the getmain, freemain or storage macro. This is not used by SVC 4 5,10, SVC 4,5,10 branch entry or SVC 120 branch entry
		..1. ....		VSWKAR15USED	AR15 is used
		...1 ....		VSWKR64	AMODE(,ANY64)
		.... 1...		VSWKCHECKZERO	CHECKZERO=YES was specified on STORAGE OBTAIN or GETMAIN
		.... .1..		VSWKTCBS	TCBADDR was specified on STORAGE OBTAIN or RELEASE
		.... ..11		VSWKOWNER	Owner information. See VswkOwner_xxxx constants
31	(1F)	CHARACTER	1	VSWKMFLG	MISCELLANEOUS FLAGS
		1... ..		VSWKRRCVR	0 => RECOVERY NOT IN PROCESS 1 => RECOVERY IN PROCESS
		.1.. ....		VSWKGLSR	IGVGLSQA is ('1'B) or is not ('0'B) being called recursively.
		..1. ....		VSWKNOBK	IGVGLSQA should ('0'B) or should not ('1'B) call RSM to back the the LSQA storage it is being called to obtain.
		...1 ....		VSWK2FRR	Flag: TRUE if IGVVSTOR has put two FRRs onto the stack, FALSE otherwise

Table 602. Structure VSWKCOMM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1...		VSWKREQT	0 => NOT AN ELEMENT OR VARIABLE REQUEST 1 => ELEMENT OR VARIABLE REQUEST
		.... .111		VSWKWEXP	3 bits indicating where IGVGPTA obtained storage by by address from. Used by recovery to back out the request
		.... .1..		VSWKFFQE	First part of storage requested allocated from an FQE
		.... ..1.		VSWKMFBQ	Middle part of storage requested allocated from an FBQE
		.... ...1		VSWKLFQE	Last part of storage requested allocated from an FQE
32	(20)	CHARACTER	3	VSWKSPKY	SUBPOOL/KEY/ATTRIBUTES
32	(20)	SIGNED	2	VSWKEXSP	EXTERNAL SUBPOOL ID
32	(20)	UNSIGNED	1	*	
33	(21)	UNSIGNED	1	VSWKESPL	LOW ORDER BYTE OF SUBPOOL
34	(22)	UNSIGNED	1	VSWKSKEY	KEY OF STORAGE TO BE OBTAINED IS IN BITS 0-3 OF THIS FIELD. SEE IGVVSM31 PROLOG FOR MORE INFORMATION ON HOW THIS KEY IS PROCESSED
		1111 ....		VSWKSKEYNIBBLE	
		1... ....		VSWKSKEYUSER	User key storage
		.111 ....		*	
If any of the next 3 bits get used, the code added in IGVFAPVT and IGVFPVT to accommodate an IEP user that didn't have the same specification on both get and free, must be re-done					
		.... 111.		*	RESERVED, UNUSED
		.... ...1		VSWKIEP	Instruction execution protection (EXECUTABLE=NO) requested
The following byte is copied from an interface register. That is, this byte is passed in a register from the macro to VSM service routines.					
35	(23)	CHARACTER	1	VSWKRFLG	REQUEST FLAGS
		1... ....		VSWKALET	0 => ALET WAS SPECIFIED 1 => ALET WAS NOT SPECIFIED
		.1.. ....		VSWKREAL	0 => BACK BELOW 16M 1 => BACK ANYWHERE < 2G
		.1.. ....		VSWKR31	0 => BACK BELOW 16M 1 => BACK ANYWHERE < 2G (Also on when VSWKR64)
		..11 ....		VSWKVIRT	VIRTUAL ALLOCATION FLAGS: 00 => RESIDENCE 01 => BELOW 16M 10 => EXPLICIT (on entry to IGVVSMRT) 10 => ABOVE 16M (otherwise) 11 => ANYWHERE
		..1. ....		VSWKVABV	1 => LOCATION ABOVE 16M
		...1 ....		VSWKVBLW	1 => LOCATION BELOW 16M
		.... 1...		VSWKVAR	0 => NON-VARIABLE REQUEST 1 => VARIABLE REQUEST
		.... .1..		VSWKBNDY	0 => DOUBLE WORD BOUNDARY 1 => PAGE BOUNDARY
		.... ..1.		VSWKUNCD	0 => CONDITIONAL REQUEST 1 => UNCONDITIONAL REQUEST
		.... ...1		VSWKTYPE	0 => GETMAIN 1 => FREEMAIN



Table 602. Structure VSWKCOMM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Start of area cleared in recovery by IGVRRTR					
36	(24)	CHARACTER	64	VSWKCNLT	CONTROL INFORMATION
36	(24)	ADDRESS	4	VSWKGADR	ADDRESS OF ALLOCATED AREA
36	(24)	UNSIGNED	2	VSWKGA01	High bytes
36	(24)	UNSIGNED	1	VSWKGAD0	High Byte
37	(25)	UNSIGNED	1	VSWKGAD1	Byte 1
40	(28)	CHARACTER	60	VSWKWOGA	control information without VSWKGADR
40	(28)	UNSIGNED	4	VSWKACTS	SIZE OF ALLOCATED AREA
44	(2C)	UNSIGNED	4	VSWKSIZP	GETMAIN REQUEST SIZE ROUNDED UP TO A MULTIPLE OF 4K
48	(30)	UNSIGNED	1	VSWKRC	INTERNAL RETURN CODE
49	(31)	CHARACTER	1	VSWKPDFL	Protect Detect flags
	1... ....			VSWK_PROTECT	Need Protect processing
	.1.. ....			VSWK_DETECT	Need Detect processing
50	(32)	CHARACTER	2	*	RESERVED
52	(34)	ADDRESS	4	VSWKCELA	ADDRESS OF CELL POOL FIELDS IN GDA OR LDA
56	(38)	ADDRESS	4	VSWKQA	ADDRESS OF QUEUE ANCHOR FIELDS IN GDA OR LDA
60	(3C)	ADDRESS	4	VSWKRD	ADDRESS OF RD IN USE
64	(40)	ADDRESS	4	VSWKFBQE	ADDRESS OF FBQE BEING PROCESSED
68	(44)	ADDRESS	4	VSWKSPQE	ADDRESS OF SPQE BEING PROCESSED
72	(48)	ADDRESS	4	VSWKDQE	ADDRESS OF DQE BEING PROCESSED
76	(4C)	ADDRESS	4	VSWKAQTF	ADDRESS OF AQAT TABLE ENTRY FOR AREA BEING PROCESSED
80	(50)	ADDRESS	4	VSWKAQTI	ADDRESS OF AQATINDX ENTRY FOR AREA BEING PROCESSED
84	(54)	ADDRESS	4	VSWKDFE	ADDRESS OF DFE BEING PROCESSED
88	(58)	UNSIGNED	4	VSWKMAXA	GETMAIN MAX SIZE AVAILABLE
92	(5C)	ADDRESS	4	VSWKFRRP	USED TO COMMUNICATE BETWEEN MAINLINE GET AND FREE SERVICE ROUTINES AND FRR ROUTINES
96	(60)	CHARACTER	1	VSWKCFLG	CONTROL FLAGS
	1... ....			VSWKPG	0 => A PAGE HAS NOT FREED UP 1 => A PAGE HAS FREED UP
	.1.. ....			VSWKEXP	Address of area to get was explicitly specified
	..1. ....			VSWKEALL	For recovery - indicates that allocation for an explicit request has commenced
	...1 ....			VSWKALLZERO	Every byte of obtained storage contains X'00'.
	.... 1...			VSWKOWNINFO	1 => VswkOwnAsid and VswkOwnJobname contain valid data
	.... .1..			VSWKNEWPG24	1 => Use a new page if obtaining 24 bit storage
	.... ..1.			VSWKNEWPG31	1 => Use a new page if obtaining 31 bit storage
	.... ...1			VSWKDGET	Initialize the obtained storage to a nonzero pattern

Table 602. Structure VSWKCOMM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
97	(61)	UNSIGNED	1	VSWKLOC	LOCATION INDICATOR (See VSWKRLOC, VSWKVLOC)
97	(61)	UNSIGNED	1	VSWKVLOC	VIRTUAL LOCATION INDICATOR 1 => ALLOCATE BELOW 16M 2 => ALLOCATE ABOVE 16M
97	(61)	UNSIGNED	1	VSWKRLOC	REAL LOCATION INDICATOR 1 => Below,Below 2 => Below,Any31 3 => Below,Any64 4 => Above,Any31 5 => Above,Any64 6 => Above,Any64,PageFrameSize1MB
98	(62)	BITSTRING	1	VSWKFRR	Used to communicate between mainline Getmain/Freemain routines and VSM's recovery routines.
		1... ....		VSWK_CSARE_SET	For Recovery. '1'B => GDACSARE has been set. (GDACSARE contains the number of bytes of common storage that remain unallocated.)
		.1.. ....		VSWK_CSACV_SET	For Recovery. '1'B => GDACSACV, GDA_CSA_Conv and GDA_ECSCA_Conc has been set. (GDACSACV contains the number of bytes of CSA that have been converted to SQA.)
		..1. ....		VSWK_ALLOCSET	For Recovery. '1'B => VSM has already set GDA_xxxx_Alloc. (xxxx = CSA or ECSA or SQA or ESQA.)
		...1 ....		VSWKEXTRACKERCODE	For Recovery. '1'B => VSM is "Executing CSA Tracker Code". Recovery takes special actions when a failure occurs in this code.
		.... 11..		*	Reserved.
		.... ..1.		VSWKDEFERRELA	For Recovery. '1'B => VSM has detected a deferred release condition that involves an "Associated" page.
		.... ...1		VSWKDEFERREL	For Recovery. '1'B => VSM has detected a deferred release condition that involves an fixed page.
<p>VSWKTracking bits are copied from the GDA at the start of every SQA/CSA Getmain/Freemain. We copy these bits to the VSWK so we will be insulated from changes to the state of tracking. This insures, for example, that no Getmain will ever see Tracking flip from on to off while it is in the middle of manipulating Tracking-related data structures.</p>					
99	(63)	BITSTRING	1	VSWKTRACKING	Indicates if on or off. Must be mapped same as GDAFLGS
		1111 ....		*	Reserved DO NOT USE
		.... 1...		VSWKCSATRACKING	
		.... .1..		VSWKSQATRACKING	
		.... ..11		*	Reserved DO NOT USE
100	(64)	CHARACTER	12	VSWKRQS2	Request information
100	(64)	ADDRESS	4	VSWK@PTR	Pointer to the target address space
104	(68)	CHARACTER	2	VSWK45TR	Trace data for SVC 4 and 5
104	(68)	BITSTRING	1	VSWK45FL	SVC 4 and 5 request flags
105	(69)	UNSIGNED	1	VSWK45SP	SVC 4 and 5 subpool id
106	(6A)	CHARACTER	2	*	Reserved
108	(6C)	UNSIGNED	4	VSWKPKMSASN	PKM and SASN
108	(6C)	BITSTRING	2	VSWKPKM	Caller's PKM, used in checking user-supplied key

Table 602. Structure VSWKCOMM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
110	(6E)	UNSIGNED	2	VSWKSASN	Secondary address space. This is used when OWNER=SECONDARY is specified for a common-area GETMAIN or STORAGE OBTAIN.
112	(70)	SIGNED	4	VSWKCSIZ	Size of CELL
116	(74)	ADDRESS	4	VSWKRETA	Return address of caller for any GETMAIN or STORAGE OBTAIN for common storage
116	(74)	BITSTRING	1	VSWKRETAHIGHBYTE	High order byte of VswkRetA
120	(78)	SIGNED	4	VSWKPAGENUM	Number of pages backed by a common area Getmain. (Can be negative.) (Mainline communicates with recovery thru this field.)
124	(7C)	ADDRESS	4	VSWKVSTORVSERRPTR	Address of a storage area where IGVVSTOR puts data which IGVVSERR uses for SSRV PTRACE entries
128	(80)	CHARACTER	8	VSWKOWNJOBNAME	Owning jobname for a common storage request if VswkOwnInfo is 1
136	(88)	UNSIGNED	2	VSWKOWNASID	Owning Asid for a common storage request if VswkOwnInfo is 1
138	(8A)	BITSTRING	1	VSWKMFLG2	
		1... ....		VSWKA31	Caller is Amode(31)
		.1.. ....		VSWKA64	Caller is Amode(64)
		..1. ....		VSWKABENDANTICIPATED	Mainline sets this to tell IGVRVSM that an abend is anticipated
		...1 ....		VSWKANTICIPATEDABENDOCCURRED	
					IGVRVSM sets this to tell mainline that an anticipated abend occurred
		.... 1...		VSWKDETECTSUFFIXISVALID	VswkDetectSuffix contains value to be used for setting suffix
		.... .1..		VSWKLARGEPAGESSOBTAINED	Large Page Frames Obtained to satisfy Obtain Request
		.... ..1.		VSWKLARGEPAGE4KFREE	4K Free being done for a large page DQE
		.... ...1		*	Reserved
139	(8B)	CHARACTER	1	*	Reserved
140	(8C)	UNSIGNED	4	VSWKAR15VALUE	AR15 on entry to GM/ST
140	(8C)	CHARACTER	1	VSWKAR15FLAGSEXT	Extended Flags
		1... ....		*	Reserved for Future Extensions
		.1.. ....		VSWKPAGEFRAMESIZE1MB	PageFrameSize1MB Specified
		..1. ....		VSWKEXECUTABLENO	EXECUTABLE=NO Specified
		...1 ....		VSWKEXECUTABLEYES	EXECUTABLE=YES specified
		.... 1111		*	Reserved for Future Extensions
141	(8D)	UNSIGNED	1	VSWKCBDY	Containing Boundary
142	(8E)	UNSIGNED	1	VSWKSBDY	Start Boundary
143	(8F)	BITSTRING	1	VSWKAR15FLAGS	Flags
		1... ....		VSWKCAUBADDRSPACE	Caub(AddrSpace) specified
		.1.. ....		VSWKOWNERASIDSPECIFIED	OwnerAsid specified
		..11 ....		VSWKFIX	
		.... 11..		VSWKBACK	
		.... 1...		*	
		.... .1..		VSWKBACKNONESPECIFIED	

Table 602. Structure VSWKCOMM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		VSWKCBDSPECIFIED	
		.... ...1		VSWKSBDYSPECIFIED	
144	(90)	ADDRESS	4	VSWKRETDADDRHIGH	High order half of the return address in VSWKRETA
148	(94)	ADDRESS	4	VSWKDETECTSUFFIXGQE@	Address of GQE in which suffix must be set
152	(98)	CHARACTER	8	VSWKDETECTSUFFIX	Suffix to use
160	(A0)	UNSIGNED	4	VSWKAR1VALUE	AR1 on entry to GM/ST
160	(A0)	CHARACTER	2	*	Reserved
162	(A2)	UNSIGNED	2	VSWKOWNERASID	OwnerAsid
164	(A4)	ADDRESS	4	VSWKLARGEAGEDQEPTR	Large Page DQE Address
168	(A8)	SIGNED	4	VSWKINITIALMAXS	Value of VSWKMAXS before accounting for protect/detect
172	(AC)	ADDRESS	4	VSWKANTICIPATEDABENDRETRYADDR	Retry address for an anticipated abend
176	(B0)	SIGNED	4	VSWKINITIALFSIZ	Value of VswkFSiz before accounting for protect/detect
180	(B4)	ADDRESS	4	VSWKLARGEAGE4KFQEQ	Address of Queue of FQEs that represent freed 4K pages within large page DQE that require a call to RSM for cleanup
184	(B8)	ADDRESS	4	VSWKDQHEADER	Address of DQE Queue header
188	(BC)	CHARACTER	4	*	Reserved
192	(C0)	CHARACTER	0	*	END OF VSWKCOMM

Table 603. Structure VSWKQANC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	VSWKQANC	MAP OF QUEUE ANCHORS IN GDA OR LDA
0	(0)	ADDRESS	4	VSWKSQAT	ADDRESS OF SQAT IN USE
4	(4)	ADDRESS	4	VSWKAQAT	ADDRESS OF AQAT FOR SUBPOOL BEING PROCESSED
8	(8)	CHARACTER	16	VSWKDFEQ	DFE QUEUE HEADER IN USE
8	(8)	ADDRESS	4	VSWKADF	HEAD OF DFE ADDR QUEUE IN USE
12	(C)	ADDRESS	4	VSWKADL	TAIL OF DFE ADDR QUEUE IN USE
16	(10)	ADDRESS	4	VSWKSZF	HEAD OF DFE SIZE QUEUE IN USE
20	(14)	ADDRESS	4	VSWKSZL	TAIL OF DFE SIZE QUEUE IN USE

Table 604. Structure VSMCPANC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	12	VSMCPANC	MAP OF CELL POOL ANCHORS IN LDA OR GDA
0	(0)	ADDRESS	4	VSMCPADR	ADDRESS OF VSM'S CELL POOL
4	(4)	SIGNED	4	VSMCPCNT	NUMBER OF FREE CELLS IN VSM'S CELL POOL
8	(8)	ADDRESS	4	VSMFCADR	ADDRESS OF FIRST FREE CELL IN VSM'S CELL POOL

Table 605. Structure VSWKPOOL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	VSWKPOOL	VSM CELL POOL BLOCK
0	(0)	CHARACTER	16	VSWKHDR	VSM CELL POOL HEADER
0	(0)	CHARACTER	4	VSWKPID	CONTROL BLOCK IDENTIFIER
4	(4)	ADDRESS	4	VSWKPNXT	ADDRESS OF THE NEXT CELL POOL BLOCK
8	(8)	SIGNED	4	VSWKPSZ	SIZE OF CELL POOL BLOCK
12	(C)	SIGNED	4	VSWKPNUM	NUMBER OF THE EXTENT
16	(10)	CHARACTER	*	VSWKPCEL	AREA FOR CELLS

Table 606. Structure VSWKCELL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	VSWKCELL	VSM CELL (SQA OR LSQA)
0	(0)	ADDRESS	4	VSWKCNXT	ADDRESS OF NEXT ELEMENT ON THE FREE CELL ON THE STACK

Table 607. Constants for IGVVSMWK

Len	Type	Value	Name	Description
<p>The constants below give the minimum number of free cells that must exist in each internal VSM cellpool in order to guarantee that no Getmain or Freemain or Storage request will exhaust the pool. NOTE: SQA-GQEs and global cells are consumed when the global cellpool is replenished, and when the SQA-GQE cellpool is replenished. The minimum numbers reflect the cost of this replenishment.</p>				
4	DECIMAL	10	VSWKCELLSPERGM	Max number of global cells needed to Get or Free storage. Increased to 9 because of contbdy/startbdy processing that could result in an extra FBQE. Increased to 10 because we get two SPQAs whenever we get an SPQA instead of one. The max ASSUMES NO REPLENISHMENT IS NECESSARY.
4	DECIMAL	1	VSWKGQECCELLSPERGM	Max number of GQE cells needed Get or Free storage, ASSUMING NO REPLENISHMENT IS NECESSARY.
4	DECIMAL	60	VSWKCMIN	Min cells in global pool. Worst case is when all pools need to be replenished. Replenishment of any pool does an "internal" getmain, which needs global cells Getmain proper needs cells
4	DECIMAL	6	VSWKGMIN	Min cells in SQA-GQE pool. Worst case is when all pools need to be replenished. Replenishment of any pool does an "internal" getmain, which needs GQEs. Getmain proper needs cells
4	DECIMAL	1	VSWKCMCA	MINIMUM NUMBER OF CELLS for CAUB
4	DECIMAL	1	VSWKCMVA	MINIMUM NUMBER OF CELLS for VAB
<p>One way to get a cell from a global internal VSM cellpool is to issue Getmain (P) SP(cellid). The "cellid" is one of the constants below, and identifies the particular type of cell desired.</p>				
4	DECIMAL	0	VSWKCVAB	VAB subpool constant for GETMAIN TYPE(P)
4	DECIMAL	1	VSWKCCAUB	CAUB subpool constant for GETMAIN TYPE(P)

Table 607. Constants for IGVVSMWK (continued)

Len	Type	Value	Name	Description
4	DECIMAL	2	VSWKCCSAGQE	CSA GQE subpool constant for GETMAIN TYPE(P)
4	DECIMAL	3	VSWKCSQAGQE	SQA GQE subpool constant for GETMAIN TYPE(P)
4	DECIMAL	245	@NM00021	"General use" global cellpool subpool constant GETMAIN TYPE(P)
4	DECIMAL	5	VSWKNUMGLOBALPOOLS	Number of global internal VSM cellpools. If you add a new cellpool or delete an old one you must update this constant.
0	BIT	0	VSWKRBLW	VSWKREAL IS BELOW 16M
0	BIT	1	VSWKRANY	VSWKREAL IS ANYWHERE
0	BIT	00	VSWKRES	VSWKVIRT IS RESIDENCE
0	BIT	01	VSWKBLW	VSWKVIRT IS BELOW 16M
0	BIT	10	VSWKABV	VSWKVIRT IS ABOVE 16M
0	BIT	10	VSWKEXP	EXPLICIT GETMAIN REQUEST
0	BIT	11	VSWKANY	VSWKVIRT IS ANYWHERE
0	BIT	1	VSWKL16M	VSWKVLW IS BELOW 16M
0	BIT	1	VSWKG16M	VSWKVABV IS ABOVE 16M
0	BIT	1	VSWKVBL	VSWKVAR IS VARIABLE
0	BIT	0	VSWKELEM	VSWKVAR IS ELEMENT
0	BIT	0	VSWKDWRD	VSWKBNDY IS DOUBLE WORD
0	BIT	1	VSWKPAGE	VSWKBNDY IS PAGE
0	BIT	1	VSWKCOND	VSWKUNCD IS CONDITIONAL
0	BIT	1	VSWKNOCD	VSWKUNCD IS UNCONDITIONAL
0	BIT	0	VSWKGET	VSWKTYPE IS GETMAIN
0	BIT	1	VSWKFREE	VSWKTYPE IS FREEMAIN
0	BIT	00	VSWKOWNER_HOME	
0	BIT	01	VSWKOWNER_PRIMARY	
0	BIT	10	VSWKOWNER_SECONDARY	
0	BIT	11	VSWKOWNER_SYSTEM	
4	DECIMAL	4096	VSWKPROTECTAREASIZE	This must be a power of 2 due to code expansions that use it for "rounding up". If this changes, also change VswkProtectAreaLog.
4	DECIMAL	12	VSWKPROTECTAREALOG	The log-base-2 of the protect area size.
4	DECIMAL	8	VSWKDETECTSUFFIXSIZE	
4	DECIMAL	112	VSWKBADSUFFIXREASON	Reason code for B78 abend when corrupted suffix is detected
0	BIT	00	VSWKBACKBYSP	Back according to the subpool table
0	BIT	10	VSWKBACKALL	Back all pages
0	BIT	01	VSWKBACKNONE	Back no pages
0	BIT	11	VSWKBACKRESV	Reserved
0	BIT	00	VSWKFIXNO	No fix
0	BIT	01	VSWKFIXSHORT	Short term fix
0	BIT	10	VSWKFIXLONG	Long term fix
0	BIT	11	VSWKFIXRESV	Reserved
4	DECIMAL	16776975	VSWK_KMASKOFFKEYFROMSPKY	

Table 608. Cross Reference for IGVVSMWK

Name	Offset	Hex Tag
VSMCPADR	0	
VSMCPANC	0	
VSMCPCNT	4	
VSMFCADR	8	
VSWK	0	
VSWK_ALLOCSET	62	20
VSWK_CSACV_SET	62	40
VSWK_CSARE_SET	62	80
VSWK_DETECT	31	40
VSWK_PROTECT	31	80
VSWK@PTR	64	
VSWKABENDANTICIPATED	8A	20
VSWKACDE	5C	
VSWKACTS	28	
VSWKADF	8	
VSWKADL	C	
VSWKALET	23	80
VSWKALLZERO	60	10
VSWKALST	70	
VSWKANTICIPATEDABENDOCURRED	8A	10
VSWKANTICIPATEDABENDRETRYADDR	AC	
VSWKAQAT	4	
VSWKAQTF	4C	
VSWKAQTI	50	
VSWKARSN	5E	
VSWKAR1VALUE	A0	
VSWKAR15FLAGS	8F	
VSWKAR15FLAGSEXT	8C	
VSWKAR15USED	1E	20
VSWKAR15VALUE	8C	
VSWKA31	8A	80
VSWKA64	8A	40
VSWKBACK	8F	0C
VSWKBACKNONESPECIFIED	8F	04
VSWKBNDY	23	04
VSWKCAUBADDRSPACE	8F	80
VSWKCBDY	8D	
VSWKCBDYSPECIFIED	8F	02
VSWKCELA	34	

Table 608. Cross Reference for IGVVSMWK (continued)

Name	Offset	Hex Tag
VSWKCELL	0	
VSWKCFLG	60	
VSWKCHECKZERO	1E	08
VSWKCKEY	62	
VSWKCNTL	24	
VSWKCNXT	0	
VSWKCOMA	80	
VSWKCOMM	0	
VSWKCOMS	0	
VSWKCSATRACKING	63	08
VSWKCSIZ	70	
VSWKDEFERREL	62	01
VSWKDEFERRELA	62	02
VSWKDETECTSUFFIX	98	
VSWKDETECTSUFFIXGQE@	94	
VSWKDETECTSUFFIXISVALID	8A	08
VSWKDFE	54	
VSWKDFEQ	8	
VSWKDGET	60	01
VSWKDQE	48	
VSWKDQHEADER	B8	
VSWKEALL	60	20
VSWKELST	6C	
VSWKENT	61	40
VSWKESPL	21	
VSWKEXECUTABLENO	8C	20
VSWKEXECUTABLEYES	8C	10
VSWKEXPL	60	40
VSWKEXSP	20	
VSWKEXTRACKERCODE	62	10
VSWKEXTS	8	
VSWKFADR	10	
VSWKFAD0	10	
VSWKFAD1	11	
VSWKFA01	10	
VSWKFBQE	40	
VSWKFFQE	1F	04
VSWKFIX	8F	30
VSWKFLGS	63	



Table 608. Cross Reference for IGVVSMWK (continued)

Name	Offset	Hex Tag
VSWKFRR	62	
VSWKFRRP	5C	
VSWKFSIZ	C	
VSWKFSIZ_BIT0	C	80
VSWKFSP	61	01
VSWKGADR	24	
VSWKGAD0	24	
VSWKGAD1	25	
VSWKGA01	24	
VSWKGDA	50	
VSWKGLBL	61	20
VSWKGLSR	1F	40
VSWKHDR	0	
VSWKID	0	
VSWKIEP	22	01
VSWKINITIALFSIZ	B0	
VSWKINITIALMAXS	A8	
VSWKKEY	62	F0
VSWKKEY8	62	80
VSWKLARGEAGEDQEPT	A4	
VSWKLARGEAGESOBTAINED	8A	04
VSWKLARGEAGE4KFQEQ	B4	
VSWKLARGEAGE4KFREE	8A	02
VSWKLDA	54	
VSWKLFQE	1F	01
VSWKLIST	74	
VSWKLLST	68	
VSWKLOC	61	
VSWKLST	61	04
VSWKMAIN	8	
VSWKMAXA	58	
VSWKMAXS	4	
VSWKMAXS_BIT0	4	80
VSWKMFBQ	1F	02
VSWKMFLG	1F	
VSWKMFLG2	8A	
VSWKMINS	8	
VSWKMINS_BIT0	8	80
VSWKMKEY	5F	

Table 608. Cross Reference for IGVVSMWK (continued)

Name	Offset	Hex Tag
VSWKMSPEC	1E	40
VSWKNEWPG24	60	04
VSWKNEWPG31	60	02
VSWKNOBK	1F	20
VSWKOWNASID	88	
VSWKOWNER	1E	03
VSWKOWNERASID	A2	
VSWKOWNERASIDSPECIFIED	8F	40
VSWKOWNINFO	60	08
VSWKOWNJOBNAME	80	
VSWKPAGEFRAMESIZE1MB	8C	40
VSWKPAGENUM	78	
VSWKPCEL	10	
VSWKPDFL	31	
VSWKPFLG	61	
VSWKPG	60	80
VSWKPID	0	
VSWKPKM	6C	
VSWKPKMSASN	6C	
VSWKPNUM	C	
VSWKPNXT	4	
VSWKPOOL	0	
VSWKPROC	60	
VSWKPSZ	8	
VSWKQA	38	
VSWKQANC	0	
VSWKRC	30	
VSWKRCML	61	08
VSWKRCPU	63	10
VSWKRCUR	61	02
VSWKRCVR	1F	80
VSWKRCWK	78	
VSWKRD	3C	
VSWKREAL	23	40
VSWKREQT	1F	08
VSWKRETA	74	
VSWKRETADDRHIGH	90	
VSWKRETAHIGHBYTE	74	
VSWKRFIX	61	80

Table 608. Cross Reference for IGVVSMWK (continued)

Name	Offset	Hex Tag
VSWKRFLG	23	
VSWKRFLG2	1E	
VSWKRFRR	63	20
VSWKRLOC	61	
VSWKRPAG	61	10
VSWKRQST	4	
VSWKRQS2	64	
VSWKRSET	63	40
VSWKR31	23	40
VSWKR64	1E	10
VSWKSADR	4	
VSWKSASN	6E	
VSWKSAVE	7C	
VSWKSBDY	8E	
VSWKSBDYSPECIFIED	8F	01
VSWKSIZP	2C	
VSWKSKEY	22	
VSWKSKEYNIBBLE	22	F0
VSWKSKEYUSER	22	80
VSWKSPKY	20	
VSWKSPQE	44	
VSWKSPTT	14	
VSWKSQAT	0	
VSWKSQATRACKING	63	04
VSWKSTAT	62	01
VSWKSTCK	140	
VSWKSTOR	63	80
VSWKSVC	60	
VSWKSZF	10	
VSWKSZL	14	
VSWKTCB	58	
VSWKTCBS	1E	04
VSWKTOP	64	
VSWKTRACKING	63	
VSWKTYPE	23	01
VSWKUNCD	23	02
VSWKUNUSABLE	63	08
VSWKVABV	23	20
VSWKVAR	23	08

Table 608. Cross Reference for IGVVSMWK (continued)

Name	Offset	Hex Tag
VS WKVBLW	23	10
VS WKVIRT	23	30
VS WKVLOC	61	
VS WKVSTORVSERRPTR	7C	
VS WKWEXP	1F	07
VS WKWOGA	28	
VS WK2FRR	1F	10
VS WK45FL	68	
VS WK45SP	69	
VS WK45TR	68	

## IHAARB information

### IHAARB programming interface information

IHAARB is a programming interface.

### IHAARB heading information

<b>Common name:</b>	Associated Request Block Mapping
<b>Macro ID:</b>	IHAARB
<b>DSECT name:</b>	ARB
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	4096 bytes ARB -- X'1000' bytes
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	User
<b>Serialization:</b>	None required
<b>Function:</b>	Provides a map for the dumping Associated Request Block The associated request block is a list of all of the ranges of objects that were validly requested to be dumped. It is created based on what is specified in the STRLIST and placed in the dump header (IHADWHDR) when the dump is taken and written to the dump data set.

## IHAARB mapping

Table 609. Structure ARB

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ARB	Associated Request Block (ARB)
0	(0)	CHARACTER	16	ARB_RANGEENTRY	Array of range entries in the ARB. The maximum number of range entries that can be specified in the ARB is 256. To find how many actual ranges are in the ARB, look at the field DWHDRDUMPLISTLEN found in the dump header. The dump header is mapped by IHADWHDR
0	(0)	CHARACTER	16	ARB_RANGE	A single range ...
0	(0)	BITSTRING	2	ARB_OBJECTTYPE	Dump Object Type
The following field only apply if the ARB-OBJECT Type is equal to either KARB_Castout_Type, KARB_StorClass_Type, or KARB_ListNum_Type					
2	(2)	CHARACTER	1	ARB_RANGEFLAGS	Reserved
Bit definitions:					
		1... ....		ARB_INCLUDEADJ	"X'80'" Adjunct inclusion - 0 => Indicates that adjunct data was not requested to be dumped 1 => Indicates that adjunct data was requested to be dumped NOTE: If on, see the ARB_AdjDirect bit to see how the adjunct data was dumped
		.1.. ....		ARB_SUMMARY	"X'40'" Summary indicator 0 => Indicates that the the entries will be dumped for this object SUMMARY=NO 1 => Indicates that no entries will be dumped for this object SUMMARY=YES
3	(3)	CHARACTER	1	ARB_RANGEINFO	Range Information
Bit definitions:					
		1... ....		ARB_EDATAREQ	"X'80'" Entry data requested flag 0 => EDATA=NO - Indicates that entry data associated with data entries should not be dumped 1 => EDATA=SERIALIZED  UNSERIALIZED - Indicates that entry data associated with data entries should be dumped NOTE: if this bit is set on, check the ARB_EDataSer to see if the entry data was dumped serialized or unserialized
		.1.. ....		ARB_EDATASER	"X'40'" Entry Data serialized flag 0 => EDATA=UNSERIALIZED - Indicates that the entry data is to be dumped without dump serialization being held on the structure 1 =>EDATA=SERIALIZED - Indicates that the entry data is to be dumped with dump serialization on the structure NOTE: Only valid if ARB_EDataReq is set to on
		..1. ....		ARB_ADJDIRECT	"X'20'" ADJUNCT=DIRECTIO bit - 0 => Indicates that the adjunct data was captured and dumped with the entry controls (ADJUNCT=CAPTURE) 1 => Indicates that the adjunct data was written directly to the dump data set from the structure ADJUNCT=DIRECTIO NOTE: Valid only if the ARB_IncludeAdj bit is on
4	(4)	CHARACTER	4		Reserved

Table 609. Structure ARB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	SIGNED	4	ARB_RANGESTART	Start of Range
12	(C)	SIGNED	4	ARB_RANGEEND	End of Range
Constants for the Dumping Object Type					
12	(C)	BITSTRING	0	KARB_LOCKTABLE_TYPE	"X'0301'" Lock table
12	(C)	BITSTRING	0	KARB_LISTNUM_TYPE	"X'0302'" List Number
12	(C)	BITSTRING	0	KARB_USERCNTLS_TYPE	"X'0303'" List User Controls
12	(C)	BITSTRING	0	KARB EMCNTL_TYPE	"X'0304'" Event Monitor Control
12	(C)	BITSTRING	0	KARB_EVENTQ_TYPE	"X'0305'" Event Queue
12	(C)	BITSTRING	0	KARB_STORCLASS_TYPE	"X'0401'" Storage class
12	(C)	BITSTRING	0	KARB_CASTOUT_TYPE	"X'0402'" Castout class
12	(C)	BITSTRING	0	KARB_LCCNTLS_TYPE	"X'0403'" Local cache Controls
4096	(1000)	X'1000'	0	ARB_LEN	"*-ARB"

Table 610. Cross Reference for IHAARB

Name	Offset	Hex Tag
ARB	0	
ARB_ADJDIRECT	3	20
ARB_EDATAREQ	3	80
ARB_EDATASER	3	40
ARB_INCLUDEADJ	2	80
ARB_LEN	1000	1000
ARB_OBJECTTYPE	0	
ARB_RANGE	0	
ARB_RANGEEND	C	
ARB_RANGEENTRY	0	
ARB_RANGEFLAGS	2	
ARB_RANGEINFO	3	
ARB_RANGESTART	8	
ARB_SUMMARY	2	40
KARB_CASTOUT_TYPE	C	402
KARB EMCNTL_TYPE	C	304
KARB_EVENTQ_TYPE	C	305
KARB_LCCNTLS_TYPE	C	403
KARB_LISTNUM_TYPE	C	302
KARB_LOCKTABLE_TYPE	C	301
KARB_STORCLASS_TYPE	C	401
KARB_USERCNTLS_TYPE	C	303

## IHAASTE1 information

### IHAASTE1 heading information

<b>Common name:</b>	ADDRESS SPACE SECOND TABLE ENTRY (ASTE)
<b>Macro ID:</b>	IHAASTE1
<b>DSECT name:</b>	ASTE1
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 245 Key: 0
<b>Size:</b>	64 BYTES. THERE IS ONE ASTE PER ADDRESS SPACE.
<b>Created by:</b>	IEAVNP09 (SUBPOOL 245 - COMMON SQA/ESQA)
<b>Pointed to by:</b>	ASCBASTE (VIRTUAL ADDRESS)
<b>Serialization:</b>	FIELDS ARE SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK AND BY COMPARE AND SWAP.
<b>Function:</b>	MAPS THE ASTE. THE ASTE CONTAINS THE REAL ADDRESS AND LENGTH OF THE LT, THE REAL ADDRESS AND LENGTH OF THE AT, AND OTHER ADDRESS SPACE ORIENTED CROSS MEMORY INFORMATION.

### IHAASTE1 mapping

Table 611. Structure ASTE1

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	64	ASTE1	ADDRESS SPACE SECOND TABLE ENTRY.
0	(0)	ADDRESS	4	ASTE1AT0	AUTHORIZATION TABLE ORIGIN. CONTAINS REAL ADDRESS OF THE AT FOR THIS ADDRESS SPACE. BITS 1-29 OF ASTE1AT0, WITH TWO LOW ORDER ZEROS APPENDED, FORM THE AUTHORIZATION TABLE REAL ADDRESS. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK AND CS
		1... ..		ASTE1ICMA	INVALID CROSS MEMORY ACCESS INDICATOR. IF 1, THE ADDRESS SPACE ASSOCIATED WITH THIS ASTE1 IS NOT AVAILABLE FOR CROSS MEMORY FUNCTIONS.
4	(4)	UNSIGNED	2	ASTE1AX	AUTHORIZATION INDEX. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
6	(6)	UNSIGNED	2	ASTE1ATL	AUTHORIZATION TABLE LENGTH. BITS 0-11 CONTAIN THE NUMBER OF WORDS, MINUS ONE, IN THE AT. BITS 12-13 ARE ZERO. BITS 14-15 ARE INDICATORS. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
6	(6)	BITSTRING	1	ASTE1ATL0	
7	(7)	BITSTRING	1	ASTE1ATL1	
		1111 ...		*	
		.... 11..		ASTE1RV01	RESERVED BITS - ZERO
		.... ..1.		ASTE1CA	CONTROLLED ASID

Table 611. Structure ASTE1 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		ASTE1RA	REUSABLE ASID
8	(8)	BITSTRING	8	ASTE1ASCE	SEGMENT/REGION TABLE DESCRIPTOR AND LENGTH IN FORMAT OF CRS 1 AND 7. SERIALIZED BY CS.
8	(8)	CHARACTER	8	ASTE1TA	TABLE ADDRESS. 0-51 OF THE ASCE, WITH 12 ZEROS APPENDED, FORM THE 64 BIT REAL ADDRESS OF THE SEGMENT/REGION TABLE.
8	(8)	BITSTRING	6	*	BYTES 0-5 OF THE ASCE
14	(E)	BITSTRING	1	ASTE1TFL	TABLE FLAGS
		1111 ....		*	PART OF REAL ADDRESS
		.... 11..		ASTE1ASCEBITS52AND53	ASCE.52/53
		.... ..1.		ASTE1SUBSP	SUBSPACE-GROUP CONTROL (ONLY IN PSTD AND SSTD)
		.... ...1		ASTE1PVT	PRIVATE-SPACE CONTROL
15	(F)	BITSTRING	1	ASTE1TL	TABLE LENGTH (IN BITS 62-63), MINUS ONE, IN UNITS OF 4096 BYTES.
		1... ....		ASTE1SAEM	STORAGE ALTERATION EVENT MASK. IF ON, A STORAGE ALTERATION PER EVENT CAN OCCUR WITHIN THE DESIGNATED SPACE. SERIALIZED BY COMPARE AND SWAP.
		.1.. ....		ASTE1SSEM	SPACE SWITCH EVENT MASK. IF 1, A PROGRAM INTERRUPT WILL BE PRESENTED ON COMPLETION OF A PC OR PT THAT CAUSES A SPACE SWITCH. SERIALIZED BY COMPARE AND SWAP.
		..1. ....		ASTE1REAL	REAL-SPACE CONTROL
		...1 ....		*	UNUSED
		.... 11..		ASTE1DTYPE	DESIGNATION TYPE SEE CONSTANT ASTE1DTYPE_XXX. '00' = SEGMENT TABLE '01' = REGION 3RD TABLE '10' = REGION 2ND TABLE '11' = REGION 1ST TABLE. NOT USED WHEN REAL-SPACE
		.... ..11		ASTE1TLEN	TABLE LENGTH. NOT USED WHEN REAL-SPACE
16	(10)	ADDRESS	4	ASTE1PALD	PASN ACCESS LIST DESIGNATOR. BITS 1-24 WITH SEVEN ZEROES APPENDED ON THE RIGHT FORM THE 31-BIT REAL ADDRESS OF THE PASN ACCESS LIST. BITS 25-31 REPRESENT THE NUMBER OF 128 BYTE ACCESS LISTS, MINUS ONE.
20	(14)	UNSIGNED	4	ASTE1SQN	ASTE1 SEQUENCE NUMBER. (UNSIGNED)
24	(18)	CHARACTER	4	*	
24	(18)	ADDRESS	4	ASTE1LTD	LINKAGE TABLE DESIGNATOR. BITS 1-24, WITH SEVEN LOW ORDER ZEROS APPENDED, FORM THE LINKAGE TABLE REAL ADDRESS. BITS 25-31 CONTAIN THE NUMBER OF 128 BYTE EXTENTS, MINUS ONE, IN THE LINKAGE TABLE. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
		1... ....		ASTE1LTV	LINKAGE TABLE VALID FLAG. IF 1, LT IS VALID, IF 0, LT IS INVALID.
24	(18)	ADDRESS	4	ASTE1LFTD	LINKAGE FIRST TABLE DESIGNATOR. BITS 1-23, WITH EIGHT LOW ORDER ZEROS APPENDED, FORM THE LINKAGE FIRST TABLE REAL ADDRESS. BITS 24-31 CONTAIN THE NUMBER OF 256 BYTE EXTENTS, MINUS ONE, IN THE LINKAGE FIRST TABLE. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.



Table 611. Structure ASTE1 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ..		ASTE1LFTV	LINKAGE FIRST TABLE VALID FLAG. IF 1, LFT IS VALID, IF 0, LFT IS INVALID.
28	(1C)	ADDRESS	4	ASTE1PROG	ASTE1 PROGRAMMING WORD IF ADDRESS SPACE - CONTAINS ASCB ADDRESS.
		11... ..		ASTE1TYPE	ASTE1PROG TYPE INFORMATION: '00'B - ADDRESS SPACE ASTE1 '10'B - DATA SPACE ASTE1 '01'B - SUBSPACE ASTE1
32	(20)	CHARACTER	12	ASTE1R020	RESERVED
44	(2C)	UNSIGNED	4	ASTE1IN	INSTANCE NUMBER
48	(30)	CHARACTER	16	ASTE1R030	RESERVED
64	(40)	CHARACTER	0	ASTE1END	END OF ASTE1.

Table 612. Constants for IHAASTE1

Len	Type	Value	Name	Description
CONSTANTS FOR ASTE1DTYPE				
0	BIT	00	ASTE1DTYPE_ST	SEGMENT TABLE
0	BIT	01	ASTE1DTYPE_R3T	REGION 3RD TABLE
0	BIT	10	ASTE1DTYPE_R2T	REGION 2ND TABLE
0	BIT	11	ASTE1DTYPE_R1T	REGION 1ST TABLE
CONSTANTS FOR ASTE1TYPE				
0	BIT	10	ASTE1DS	DATA SPACE ASTE1
0	BIT	01	ASTE1SS	SUBSPACE ASTE1
0	BIT	00	ASTE1AS	ADDRESS SPACE ASTE1
Constants for ASTE1ATL				
2	HEX	FFF0	ASTE1ATLMASK	Mask for obtaining ATL*16 from ASTE1ATL
2	HEX	0001	ASTE1ATLNONATLMASK	Mask for obtaining non-ATL bits used by MVS from ASTE1ATL
4	HEX	FFFF000F	ASTE1NOATL	Mask out the AT length field in the ASTE, preserving the AX and non-ATL bits.
Constant for AST				
4	DECIMAL	4096	ASTE1ASTS	The size used by z/OS. Architecturally it could be bigger

Table 613. Cross Reference for IHAASTE1

Name	Offset	Hex Tag
ASTE1	0	
ASTE1ASCE	8	
ASTE1ASCEBITS52AND53	E	0C
ASTE1ATL	6	
ASTE1ATL0	6	
ASTE1ATL1	7	
ASTE1ATO	0	

Table 613. Cross Reference for IHAASTE1 (continued)

Name	Offset	Hex Tag
ASTE1AX	4	
ASTE1CA	7	02
ASTE1DTYPE	F	0C
ASTE1END	40	
ASTE1ICMA	0	80
ASTE1IN	2C	
ASTE1LFTD	18	
ASTE1LFTV	18	80
ASTE1LTD	18	
ASTE1LTV	18	80
ASTE1PALD	10	
ASTE1PROG	1C	
ASTE1PVT	E	01
ASTE1RA	7	01
ASTE1REAL	F	20
ASTE1RV01	7	0C
ASTE1R020	20	
ASTE1R030	30	
ASTE1SAEM	F	80
ASTE1SQN	14	
ASTE1SSEM	F	40
ASTE1SUBSP	E	02
ASTE1TA	8	
ASTE1TFL	E	
ASTE1TL	F	
ASTE1TLEN	F	03
ASTE1TYPE	1C	C0

## IHACDR information

### IHACDR programming interface information

IHACDR is a programming interface.

### IHACDR heading information

<b>Common name:</b>	Configuration Data Record
<b>Macro ID:</b>	IHACDR
<b>DSECT name:</b>	CDR, NED, GNEQ, SNEQ
<b>Owning component:</b>	I/O Supervisor (SC1C3)

**Eye-catcher ID:** none

**Storage attributes:** Subpool: caller-provided  
Key: caller-provided  
Residency: caller-provided

**Size:** Variable  
CDR -- X'0020' bytes  
byte records.  
GNEQ -- X'0020' bytes  
SNEQ -- X'0020' bytes  
NED -- X'0020' bytes

**Created by:** issuer of IOSCDR service

**Pointed to by:** User defined

**Serialization:** N/A

**Function:** IHACDR maps the configuration data record (CDR), which is returned by the read configuration data (RCD) command. A CDR consists of a variable number of 32-byte fields. Each 32-byte field is identified in the first 2 bits (field identifier) as one of four types: unused, a general node element qualifier (GNEQ), a specific node element qualifier (SNEQ), or a node element descriptor (NED). After the field identifier, the contents of the rest of the 32-byte field depends on the type. If the 32-byte field is a GNEQ, it is mapped by the GNEQ structure included in IHACDR. If the 32-byte field is an SNEQ, it is mapped by the SNEQ structure included in IHACDR. If the 32-byte field is an NED, it is mapped by the NED structure included in IHACDR. Unused fields have no mapping. The GNEQ is required and is the last 32-byte field in a CDR. The GNEQ contains information that applies to all of the node elements in a CDR. An SNEQ or set of contiguous SNEQs contain information regarding the node element described by the immediately preceding NED in the CDR. SNEQs are optional. An NED is a required 32-byte field in a CDR. There may be more than 1 NED in a CDR. The NED contains information that uniquely identifies a node element.

## IHACDR mapping

Table 614. Structure CDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CDR	Configuration data record
0	(0)	CHARACTER	32	CDRFIELD(0)	A CDR consists of a variable number of 32-byte fields
0	(0)	CHARACTER	32	CDRINFO(0)	CDR field information
0	(0)	CHARACTER	1	CDRFLAGS(0)	Byte 0

Table 614. Structure CDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		11.. ....		CDRFLDID	"X'C0'" Field identifier - identifies the contents of the 32-byte field. The content of the remaining fields of this structure depend on the field identifier.
1	(1)	CHARACTER	31		Bytes 1-31
Values for CDRFLDID					
		.... ....		CDRFUNUS	"B'00000000'" Unused
		.1.. ....		CDRFSNEQ	"B'01000000'" SNEQ
		1... ....		CDRFGNEQ	"B'10000000'" GNEQ
		11.. ....		CDRFNED	"B'11000000'" NED
1	(1)	X'20'	0	CDR_LEN	"*-CDR"

Table 615. Structure GNEQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GNEQ	General Node-Element Qualifier
0	(0)	CHARACTER	1	GNEFLAGS(0)	Flags
		11.. ....		GNEFLDID	"X'C0'" Field identifier
		.... ...1		GNEDYNRT	"X'01'" Dynamic Routing is supported
1	(1)	BITSTRING	1	GNERS	Record selector
2	(2)	SIGNED	2	GNEINTID	Interface ID
4	(4)	BITSTRING	1	GNEDDTO	Device-Dependent Time Out
5	(5)	CHARACTER	1		Reserved
6	(6)	BITSTRING	1	GNEMIHPT	MIH primary time out
7	(7)	BITSTRING	1	GNEMIHST	MIH secondary time out
8	(8)	CHARACTER	24	GNEXINFO(0)	General node element extended information
8	(8)	BITSTRING	1	GNEQFLDS	Q fields
32	(20)	X'20'	0	GNEQ_LEN	"*-GNEQ"

Table 616. Structure SNEQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SNEQ	Specific Node-Element Qualifier
0	(0)	CHARACTER	1	SNEFLAGS(0)	Flags
		11.. ....		SNEFLDID	"X'C0'" Field identifier
1	(1)	CHARACTER	7		Reserved
8	(8)	CHARACTER	24	SNEXINFO	Specific node element extended information
8	(8)	X'20'	0	SNEQ_LEN	"*-SNEQ"

Table 617. Structure NED

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NED	Node-Element Descriptor
0	(0)	CHARACTER	1	NEDFLAGS(0)	Flags
		11.. ....		NEDFLDID	"X'C0'" Field identifier

Table 617. Structure NED (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		NEDTOKEN	"X'20'" Token indicator
		...1 ....		NEDSNIND	"X'10'" Serial number indicator
		.... 1...		NEDSUBSN	"X'08'" Substitute serial number indicator
		.... .1..		NEDRECON	"X'04'" Reconfiguration NED indicator
		.... ..1.		NEDEMULA	"X'02'" Emulation NED indicator
1	(1)	BITSTRING	1	NEDTYPE	Type of node element described by this NED
2	(2)	BITSTRING	1	NEDCLASS	I/O device class. Valid only for I/O device type NEDs
3	(3)	BITSTRING	1	NEDFLAG2(0)	
		.... ...1		NEDLEVEL	"X'01'" Level indicator
4	(4)	CHARACTER	28	NEDID(0)	Node element identifier
4	(4)	CHARACTER	26	NEDSRTID(0)	26 byte node element identifier
4	(4)	CHARACTER	6	NEDTYPEN	Type number
10	(A)	CHARACTER	3	NEDMODN	Model number
13	(D)	CHARACTER	3	NEDMANUF	Manufacturer
16	(10)	CHARACTER	2	NEDPMANU	Plant of manufacture
18	(12)	CHARACTER	12	NEDSEQN	Sequence number
30	(1E)	SIGNED	2	NEDTAG	Tag
Values for NEDTYPE					
30	(1E)	X'0'	0	NEDTUNSP	"0" Unspecified
30	(1E)	X'1'	0	NEDTIODV	"1" I/O device
30	(1E)	X'2'	0	NEDTCU	"2" Control Unit
Values for NEDCLASS					
30	(1E)	X'0'	0	NEDCUNSP	"0" Unspecified
30	(1E)	X'1'	0	NEDCDASD	"1" DASD
30	(1E)	X'2'	0	NEDCTAPE	"2" Magnetic tape
30	(1E)	X'3'	0	NEDCURIN	"3" Unit record (input)
30	(1E)	X'4'	0	NEDCUROT	"4" Unit record (output)
30	(1E)	X'5'	0	NEDCPRT	"5" Printer
30	(1E)	X'6'	0	NEDCCOMM	"6" Communications controller
30	(1E)	X'7'	0	NEDCFST	"7" Full screen terminal
30	(1E)	X'8'	0	NEDCLMT	"8" Line mode terminal
30	(1E)	X'9'	0	NEDCCTCA	"9" Channel-to-channel adapter
30	(1E)	X'A'	0	NEDCSWIT	"10" Switch
30	(1E)	X'C'	0	NEDCCTRL	"12" Controller
Values for GNEQFLDS					
30	(1E)	X'1'	0	GNEQITME	"1" Device dependent time out value field offset
30	(1E)	X'20'	0	NED_LEN	"*-NED"

Table 618. Cross Reference for IHACDR

Name	Offset	Hex Tag
CDR	0	
CDR_LEN	1	20
CDRFGNEQ	1	80
CDRFIELD	0	
CDRFINFO	0	
CDRFLAGS	0	
CDRFLDID	0	C0
CDRFNED	1	C0
CDRFSNEQ	1	40
CDRFUNUS	1	0
GNEDDTO	4	
GNEDYNRT	0	1
GNEFLAGS	0	
GNEFLDID	0	C0
GNEINTID	2	
GNEMIHPT	6	
GNEMIHST	7	
GNEQ	0	
GNEQ_LEN	20	20
GNEQFLDS	8	
GNEQITME	1E	1
GNERS	1	
GNEXINFO	8	
NED	0	
NED_LEN	1E	20
NEDCCOMM	1E	6
NEDCCTCA	1E	9
NEDCCTRL	1E	C
NEDCDASD	1E	1
NEDCFST	1E	7
NEDCLASS	2	
NEDCLMT	1E	8
NEDCPRT	1E	5
NEDCSWIT	1E	A
NEDCTAPE	1E	2
NEDCUNSP	1E	0
NEDCURIN	1E	3
NEDCUR0T	1E	4
NEDEMULA	0	2

Table 618. Cross Reference for IHACDR (continued)

Name	Offset	Hex Tag
NEDFLAGS	0	
NEDFLAG2	3	
NEDFLDID	0	C0
NEDID	4	
NEDLEVEL	3	1
NEDMANUF	D	
NEDMODN	A	
NEDPMANU	10	
NEDRECON	0	4
NEDSEQN	12	
NEDSNIND	0	10
NEDSRTID	4	
NEDSUBSN	0	8
NEDTAG	1E	
NEDTCU	1E	2
NEDTIODV	1E	1
NEDTOKEN	0	20
NEDTUNSP	1E	0
NEDTYPE	1	
NEDTYPEN	4	
SNEFLAGS	0	
SNEFLDID	0	C0
SNEQ	0	
SNEQ_LEN	8	20
SNEXINFO	8	

## IHACDX information

### IHACDX programming interface information

IHACDX is a programming interface.

### IHACDX heading information

<b>Common name:</b>	Contents Directory Entry Extension
<b>Macro ID:</b>	IHACDX
<b>DSECT name:</b>	CDX CDXPATH
<b>Owning component:</b>	Contents Supervision (SC1CJ)
<b>Eye-catcher ID:</b>	CDX Offset: 8 Length: 3

**Storage attributes:** Subpool: 245 for LPA CDXs,  
254 for JPQ CDXs for task not below ITCB  
255 for JPQ CDXs for task below ITCB  
Key: 0

**Size:** CDX -- X'2058' bytes  
CDXPath -- X'000E' bytes  
+ CDXPATH\_LEN bytes for CDXPATH\_NAME

**Created by:** CSVGETMD for JPQ CDXs and by IEAVNP05 for LPA CDXs.

**Pointed to by:** CDX pointed to by CDECDX within macro IHACDE  
CDXPATH pointed to by CDXPathAddr

**Serialization:** Same as for CDE (IHACDE)

**Function:** Maintains extra information associated with a CDE.  
Do not create this block "on your own".  
Do not rely on the length of this block.

## IHACDX mapping

Table 619. Structure CDX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CDX	
0	(0)	CHARACTER	8		Not part of the intended interface
8	(8)	CHARACTER	3	CDXID	CDX ID = 'CDX'
11	(B)	CHARACTER	1		Not part of the intended interface
12	(C)	ADDRESS	4	CDXPATHADDR	Address of the name mapped by DSECT CDXPath. Valid only when bit CDPATHN is on in the CDE
16	(10)	SIGNED	2	CDXPATHLEN	Length of the area pointed to by CDXPathAddr
18	(12)	CHARACTER	6		Not part of the intended interface
24	(18)	ADDRESS	4	CDXCDEADDR	Address of the CDE associated with this CDX
28	(1C)	CHARACTER	4		Not part of the intended interface
32	(20)	SIGNED	2	CDXLEN	When not 0, the length of the base section of the CDX. Do not reference any field after CDXEntp64 without verifying that CDXLen is big enough.
34	(22)	CHARACTER	38		Not part of the intended interface
72	(48)	ADDRESS	4	CDXXTLST64ADDR	When a major CDE, address of 64- bit-address extent list mapped by IHAXTL64 or 0 if all segment addresses and lengths fit within the 32-bit-address extent list pointed to by CDXMLJP of the major CDE. When a minor CDE, 0
72	(48)	ADDRESS	4	CDXXTL64ADDR	Same as CDXXtlst64Addr
76	(4C)	CHARACTER	4		Not part of the intended interface
80	(50)	ADDRESS	8	CDXENTPT64	64-bit EPA. Bit 63 is on if AMODE 64, bit 32 is on and bit 63 is off if AMODE 31, bits 32 and 63 are off if AMODE 24
88	(58)	CHARACTER	8192		Reserved. The storage for this field might not be accessible



Table 620. Structure CDXPATH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CDXPATH	
0	(0)	CHARACTER	12		Not part of the intended interface
12	(C)	SIGNED	2	CDXPATH_LEN	Length of the path name
14	(E)	CHARACTER	1	CDXPATH_NAME(0)	The path name. Only the characters indicated by CDXPath_Len are valid

Table 621. Cross Reference for IHACDX

Name	Offset	Hex	Tag
CDX	0		
CDXCDEADDR	18		
CDXENTPT64	50		
CDXID	8		
CDXLEN	20		
CDXPATH	0		
CDXPATH_LEN	C		
CDXPATH_NAME	E		
CDXPATHADDR	C		
CDXPATHLEN	10		
CDXXTLST64ADDR	48		
CDXXTL64ADDR	48		

## IHADPL information

### IHADPL heading information

<b>Common name:</b>	SVC DUMP PACKING LIST
<b>Macro ID:</b>	IHADPL
<b>DSECT name:</b>	DPL
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	DPL Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245 (common) or 225 (private) Key: 0 Residency: Above 16M, fixed common
<b>Size:</b>	See listing
<b>Created by:</b>	IEAVTSDI, IEAVTSDS
<b>Pointed to by:</b>	Reg 1 on entry to IEAVTDWT RTCTDPLF, RTCTDPLB (common DPL queue) RTSDDPPF, RTSDDPPB (private DPL queue) DPLFWDPT, DPLBWDPT (next, prev DPL) SddSYDPL (backup common DPL)

**Serialization:** ENQ on SYSIEA01 DPLCHAIN for DPL queue

**Function:** THE SVC DUMP PACKING LIST DESCRIBES THE ENTIRE PACKAGED DUMP. IT CONTAINS POINTERS TO THE INFORMATION WHICH WILL BE WRITTEN TO THE DUMP DATA SET. THE DUMP PACKING LIST IS PASSED AS INPUT TO THE DUMP WRITING TASK.

## IHADPL mapping

Table 622. Structure DPL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	6256	DPL	SVC DUMP PACKING LIST
0	(0)	CHARACTER	4	DPLID	DPL ACRONYM
----- Caution ----- Fields from DplFirstNotCopy to DplLastNotCopy must be contiguous. They represent fields which must not be overlaid if/when a COMMON DPL is copied into a private DPL.					
4	(4)	CHARACTER	0	DPLFIRSTNOTCOPY	
4	(4)	ADDRESS	4	DPLFWDPT	NEXT ELEMENT POINTER
8	(8)	ADDRESS	4	DPLBWDPT	PREVIOUS ELEMENT POINTER
12	(C)	ADDRESS	4	DPLSWT	Address of SWT being used to dump info in this DPL
16	(10)	ADDRESS	4	DPLHDDRP	POINTER TO DUMP HEADER AND 4K BUFFER
20	(14)	SIGNED	4	DPLSUBPOOL	Which subpool DPL is in
24	(18)	UNSIGNED	4	DPLWTECB	ECB WAITED ON BY IEAVTDWT DURING CAPTURE PHASE - POSTED AT END OF DUMP CAPTURE PHASE. It must not be copied, because copying would overlay the WAIT information.
28	(1C)	CHARACTER	1	DPLNOTCOPYFLAGS	Flags
	1... ....			DPLSYSTEM	If on, this is the single system DPL
	.1.. ....			DPLDUMMY	If on, this is a private DPL which is waiting for the system DPL to be copied into it.
	..1. ....			DPLINPRIVATE	If on, this is a private DPL
	...1 ....			DPLEXITINHIGHVIRTUAL	If on, the dump is capturing exit data into dumsiv high virtual (ME04648)
	.... 1111			*	Reserved
29	(1D)	CHARACTER	3	*	
32	(20)	CHARACTER	16	*	
48	(30)	CHARACTER	0	DPLLASTNOTCOPY	
48	(30)	ADDRESS	4	DPLDDSN	DUMP DATA SET NAME
52	(34)	CHARACTER	132	DPLSUMRY	SUMMARY DUMP INFORMATION
52	(34)	CHARACTER	8	DPLSDSP	STOKEN OF SUNDUMP DATA SPACE
60	(3C)	SIGNED	4	DPLSDNUM	NUMBER OF SUNDUMP DATA SECTIONS
64	(40)	CHARACTER	8	DPLSDATT(15)	ARRAY OF THE ADDRESS AND SIZE OF EACH DATA SECTION
64	(40)	ADDRESS	4	DPLSDATP	ADDRESS OF THE CURRENT SUNDUMP DATA SECTION
68	(44)	SIGNED	4	DPLSDSIZ	SIZE OF THE VALID DATA IN THE CURRENT SDUMP DATA SECTION
184	(B8)	CHARACTER	16	DPLEXITD	EXIT DATA INFORMATION

Table 622. Structure DPL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
184	(B8)	CHARACTER	8	DPLDSTKN	STOKEN OF DumpSiv
192	(C0)	ADDRESS	4	DPLEBUFF	Address of the Exit Buffer Anchor in DumpSiv
196	(C4)	ADDRESS	4	DPLEWRKP	Address of a work area used by the SDUMP started task to obtain storage for the IARV64 invocation
200	(C8)	CHARACTER	24	DPLCOMN	COMMON CAPTURED RANGES
200	(C8)	CHARACTER	8	DPLCDSP	STOKEN OF COMMON DATA SPACE
208	(D0)	ADDRESS	4	DPLCROTB	ADDRESS OF THE READ ONLY COMMON RANGE TABLE COPY
212	(D4)	ADDRESS	4	DPLCDONC	ADDRESS OF THE DATOFF NUCLEUS RANGE TABLE COPY
216	(D8)	SIGNED	4	DPLCDPXN	NUMBER OF DRPX DATA SECTIONS
220	(DC)	ADDRESS	4	DPLCDPXP	ADDRESS OF FIRST DRPX SET FOR READ/ WRITE STORAGE
224	(E0)	CHARACTER	16	DPLPTABL(15)	LOCAL STORAGE DATA SPACE INFORMATION
224	(E0)	CHARACTER	8	DPLPTABS	STOKEN OF LOCAL DATA SPACE
232	(E8)	SIGNED	4	DPLPDPXN	NUMBER OF DRPX DATA SECTIONS
236	(EC)	ADDRESS	4	DPLPDPXP	ADDRESS TO FIRST DRPX SET
464	(1D0)	CHARACTER	4	DPLFLGWD	Word bdy for CS of DPLFLAGS
464	(1D0)	SIGNED	2	DPLLOCNM	NUMBER OF LOCAL DATA SPACES
466	(1D2)	CHARACTER	2	DPLFLAGS	FLAGS USED FOR WRITE PROCESS
		1... ....		DPLENSUM	WHEN 1 INDICATES ENABLED SUMMARY DUMP WAS TAKEN
		.1.. ....		DPLSDEP	CALLER'S ECB POSTED
		..1. ....		DPLECB	ON - CALLER SPECIFIED WRITE PHASE ECB TO BE POSTED IF DPLECBAD != 0 OFF - CALLER SPECIFIED WRITE PHASE SRB TO BE SCHEDULED IF DPLSRBAD != 0
		...1 ....		DPLTSOXT	IF ON - TSO USER EXTENSION PRESENT
		.... 1...		DPLTPFRC	IF ON - FAILRC SPECIFIED
		.... .1..		DPLLFDSF	IF ON - LOOKING FOR A DATASET
		.... ..1.		DPLSDUNL	IF ON - DCB processing unlocked SDUMP
		.... ...1		DPLROCDN	IF ON - R0 Common and DATOFF NUC tables initialized
467	(1D3)	1... ....		DPLDWTCL	IF ON - Indicates DWT was called for DCB case
		.1.. ....		DPLREMOT	This is a remote dump
		..1. ....		DPLRMREQ	Remote dumps requested
		...1 ....		DPLGETSDDIE	Serialization bit for
		.... 1...		*	Reserved
		.... .1..		DPLSFFIXED	SFDPL is page fixed
		.... ..1.		DPLNOMC	Turned on if managed copy isn't possible.
		.... ...1		DPLNOHVCBUFF	Turned on if unable to obtain buffer for rest-of hvcommon in DUMPSRV hvpvt
468	(1D4)	ADDRESS	4	DPLUCBAD	Address of UCB
472	(1D8)	ADDRESS	4	DPLECBAD	ADDRESS OF USER SUPPLIED WRITE PHASE ECB
472	(1D8)	ADDRESS	4	DPLSRBAD	ADDRESS OF USER SUPPLIED WRITE PHASE SRB
476	(1DC)	ADDRESS	4	DPLDCBAD	ADDRESS OF USER SUPPLIED DCB

Table 622. Structure DPL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
480	(1E0)	UNSIGNED	4	DPLDMPID	UNIQUE NUMBER FOR PRDSEQ
480	(1E0)	BITSTRING	3	DPLDMPTN	BITS 7-30 FROM THE TIME OF DUMP
483	(1E3)	BITSTRING	1	DPLDMPSN	SEQUENCE NUMBER FROM RTSDDNUM
484	(1E4)	SIGNED	4	DPRETCOD	RETURN CODE FROM DUMP ROUTINE
484	(1E4)	CHARACTER	2	*	RESERVED
486	(1E6)	UNSIGNED	1	DPNODUMP	NO DUMP REASON CODE RETURNED TO CALLER
487	(1E7)	UNSIGNED	1	DPRETURN	SVC DUMP RETURN CODE INDICATING COMPLETE, PARTIAL OR NO DUMP CONDITION
488	(1E8)	CHARACTER	16	DPLSDRSN	SDUMP REASON CODES MAPPED BY IHASDRSN
504	(1F8)	CHARACTER	8	DPLTUSID	TSO USERID ASSOCIATED WITH THIS DUMP
512	(200)	CHARACTER	51	DPLCIDD	CALLER'S ID DATA
512	(200)	UNSIGNED	1	DPLCIDL	LENGTH OF ID
513	(201)	CHARACTER	50	DPLCID	CALLER'S ID
563	(233)	UNSIGNED	1	DPPROGRS	VALUE TO INDICATE HOW FAR THE DUMP HAS GONE: 1: SUNDUMP 2: GLOBAL 3: LOCAL 4: STRLIST
564	(234)	UNSIGNED	2	DPLCASID	ASID OF CALLER
566	(236)	UNSIGNED	1	DPLEXITT	Exit error type
567	(237)	CHARACTER	1	DPLFLGS2	Second flag byte
		1... ....		DPLASMS	SMS Class added
		.1.. ....		DPLAVOL	DASD volume added
		..1. ....		DPLREDACTABLEDUMP	This is a redactable dump
568	(238)	ADDRESS	4	DPLDSQCU	Address SDDSQ entry that has been saved by DD ADD/CLEAR processing, or set at dataset selection time.
572	(23C)	UNSIGNED	4	DPLFDECB	ECB WAITED ON BY IEAVTSCD WHICH IS POSTED WHEN A DATASET IS DD ADDED OR CLEARED
576	(240)	CHARACTER	3	DPLDIDCO	DUMP ID USED FOR MESSAGES AND TO IDENTIFY THE DUMP TO THE OPERATOR
579	(243)	UNSIGNED	1	DPLSDNA	NUMBER OF ADDRESS SPACES TO DUMP
580	(244)	BITSTRING	2	DPLSDAS(15)	ADDRESS SPACE IDS THAT ARE BEING DUMPED
610	(262)	BITSTRING	2	DPLHAID	Copy of RtsdHaid
612	(264)	ADDRESS	4	DPLDWT	Address of TCB of DWT that is passed this DPL
616	(268)	ADDRESS	4	DPLASCB	Copy of RtsdAscb
620	(26C)	CHARACTER	4	*	
624	(270)	CHARACTER	106	DPLDSPD	Copy of DSPD pointed to by SddDSPD
730	(2DA)	UNSIGNED	1	DPLPSDCPAR	Level of parallelism used for this dump.
731	(2DB)	CHARACTER	5	*	Reserved
736	(2E0)	CHARACTER	8	DPLCSTOK	When the caller passed a write ECB, this will be the STOKEN of the caller's space. If the caller passed a write SRB, this is the STOKEN of SRBASCB
744	(2E8)	ADDRESS	4	DPLPRIVATEDPL@	Address of private DPL with which the system DPL is associated

Table 622. Structure DPL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
748	(2EC)	SIGNED	4	DPLDMP#	Which dump this is. This is used in IEECB926 when determining which is the next dump to be processed when a dump data set becomes available.
752	(2F0)	SIGNED	4	DPLDUMPSRVALET	ALET of DUMPSRV
756	(2F4)	ADDRESS	4	DPLWTECB@	Address of DplWtECB in the *proper* DPL (could be the PRIVATE DPL, not this one).
760	(2F8)	ADDRESS	4	DPLPRIVATEDPLAREA@	Address of private DPL area for use in copying
764	(2FC)	CHARACTER	8	DPLJOBNM	Caller's jobname
772	(304)	CHARACTER	48	DPLSES	Data related to dumping the STRLIST
772	(304)	BITSTRING	4	DPLSESF	Flags related to dumping the STRLIST
		1... ....		*	Reserved
		.1.. ....		DPLCAPT	A capture phase ECB/SRB was requested but not processed by SCC since a serialized range was also requested
		..1. ....		DPLCAPTP	The capture phase ECB/SRB that was not processed by SCC has been processed
772	(304)	BITSTRING	3	*	Reserved
776	(308)	ADDRESS	4	DPLSFDPL	Pointer to the SFDPL
780	(30C)	SIGNED	4	DPLSTR#	Number of structures in SFDPL
784	(310)	ADDRESS	4	DPLDWSFD	Pointer to the DWSFD
788	(314)	CHARACTER	8	DPLHASHS	STOKEN of DWS/DWC hash data space
796	(31C)	ADDRESS	4	DPLHASHO	Origin of DWS/DWC hash data space
800	(320)	CHARACTER	8	DPLBUFRS	STOKEN of DWS/DWC buffer data space
808	(328)	ADDRESS	4	DPLBUFRO	Origin of DWS/DWC buffer data space
812	(32C)	SIGNED	4	DPLHSHNB	Number of 4K blocks in the hash data space
816	(330)	SIGNED	4	DPLBUFNB	Number of 4K blocks in the buffer data space
820	(334)	CHARACTER	32	DPLINTKN	Incident token
820	(334)	CHARACTER	8	DPLITSYSNAME	System name
828	(33C)	CHARACTER	8	DPLITTIMESTAMP	Time stamp
836	(344)	CHARACTER	8	DPLITPLEXNAME	Sysplex name
844	(34C)	CHARACTER	8	*	Reserved
852	(354)	SIGNED	4	DPLASYNCFID	Facility of async req
856	(358)	CHARACTER	16	DPLASYNCTOKEN	Async token
872	(368)	ADDRESS	8	DPLSDSMB	The address of the SdSmb which was captured in the Sdump High Virtual exit buffer
880	(370)	ADDRESS	4	DPLSDDIE	Ptr to DSC die storage
884	(374)	CHARACTER	20	DPLLOCALDSPEXTTABLEINFO	Information regarding the local capture data space table extension that follows
884	(374)	CHARACTER	16	DPLDSPEXTTToken	DUMPSRV task token used to create the original local capture data spaces, and that should be used on subsequent DSPSERV CREATES for additional data spaces
900	(384)	CHARACTER	4	DPLDSPEXTCSWORD	Compare and swap word for updating the next available extension table entry index. (See prolog note above.)

Table 622. Structure DPL (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
900	(384)	SIGNED	4	DPLDSPEXTNEXTINDEX	Table index of the next available table entry
904	(388)	CHARACTER	20	DPLLOCALDSPEXTTABLE(100)	Local storage data spaces whose space was exhausted before the local capture for an ASID was completed
904	(388)	CHARACTER	16	DPLDSPEXTINFOA	Local data space info. THE FORMAT OF THIS SUBSTRUCTURE MUST MATCH THE FORMAT OF A DPLPTABL TABLE ENTRY
904	(388)	CHARACTER	8	DPLDSPEXTSTOKEN	Data space token
912	(390)	SIGNED	4	DPLDSPEXTDPRXCNT	Number of DRPX data sections in data space
916	(394)	ADDRESS	4	DPLDSPEXTDPRXFIRST	Address of first DPRX set in data space
920	(398)	CHARACTER	4	DPLDSPEXTINFOB	Related info
920	(398)	UNSIGNED	2	DPLDSPEXTASID	Asid of source address space captured in this data space
922	(39A)	UNSIGNED	2	DPLDSPEXTRELATED	Index of the DplPTABL entry from which this table extension entry was initialized
2904	(B58)	CHARACTER	16	DPLCTTOKEN	Callers TToken
2920	(B68)	CHARACTER	208	DPLPSDC0(16)	SVC Dump Capture Objects - one each for dumping a/s upto 15 and last one for capturing rest of hv common
2920	(B68)	ADDRESS	8	DPLSDCOTGTSTART	Address of the start of the memory object chunk that serves as the target for captures
2928	(B70)	ADDRESS	8	DPLSDCOTGTEND	End of memory object chunk
2936	(B78)	STRUCTURE IsA(SDBA)	48	DPLSDBA(4)	
2936	(B78)	ADDRESS	8	SDBAFIRSTDRDA@	Address of first DRDA
2944	(B80)	ADDRESS	8	SDBACURDRDA@	Address of current DRDA
2952	(B88)	ADDRESS	8	SDBALASTBYTE@	Last byte of last DRDA for this capture engine.
2960	(B90)	ADDRESS	8	SDBACURZD@	Address of current Zero Def DRDA page. This points to a ZDEF record (see BLSRZDEF).
2968	(B98)	ADDRESS	4	SDBASSCSWORD@	Address of CS word used to reserve self steal responsibility
2972	(B9C)	CHARACTER	2	SDBAAVAIL	Available
2974	(B9E)	UNSIGNED	1	SDBAWORKER	Worker number
2975	(B9F)	BITSTRING	1	SDBAFLAGS	Flags byte
		1... ....		SDBACURDRDAFIXED	When on, the current DRDA page is fixed
		.111 1111		*	Available
2976	(BA0)	CHARACTER	8	*	Reserved
6248	(1868)	CHARACTER	8	*	Reserved
6256	(1870)	CHARACTER	0	*	

Table 623. Constants for IHADPL

Len	Type	Value	Name	Description
4	CHARACTER	DPL	DPLIDC	CONTROL BLOCK IDENTIFIER TO BE USED WITH DPLID FIELD
2	DECIMAL	15	MAXNUM	MAXIMUM NUMBER OF ADDRESS SPACE/DATA SPACES

Table 623. Constants for IHADPL (continued)

Len	Type	Value	Name	Description
2	DECIMAL	100	DPLMAXLOCDSPEXT	Maximum number of dynamically allocated local capture data spaces (in addition to the initially allocated data spaces anchored in DPLPTABL) per SVC dump
4	DECIMAL	245	DPLSUBPOOLCOMMON	
4	DECIMAL	225	DPLSUBPOOLPRIVATE	

Table 624. Cross Reference for IHADPL

Name	Offset	Hex	Tag
DPL	0		
DPLASCB	268		
DPLASMS	237		80
DPLASYNCFID	354		
DPLASYNCTOKEN	358		
DPLAVOL	237		40
DPLBUFNB	330		
DPLBUFRO	328		
DPLBUFRS	320		
DPLBWDPT	8		
DPLCAPT	304		40
DPLCAPTP	304		20
DPLCASID	234		
DPLCDONC	D4		
DPLCDPXN	D8		
DPLCDPXP	DC		
DPLCDSP	C8		
DPLCID	201		
DPLCIDD	200		
DPLCIDL	200		
DPLCOMN	C8		
DPLCROTB	D0		
DPLCSTOK	2E0		
DPLCTTOKEN	B58		
DPLDCBAD	1DC		
DPLDDSN	30		
DPLDIDCO	240		
DPLDMP#	2EC		
DPLDMPID	1E0		
DPLDMPSN	1E3		
DPLDMPTN	1E0		
DPLDSPD	270		

Table 624. Cross Reference for IHADPL (continued)

Name	Offset	Hex Tag
DPLDSPEXTASID	398	
DPLDSPEXTCSWORD	384	
DPLDSPEXTDPRXCNT	390	
DPLDSPEXTDPRXFIRST	394	
DPLDSPEXTINFOA	388	
DPLDSPEXTINFOB	398	
DPLDSPEXTNEXTINDEX	384	
DPLDSPEXTRELATED	39A	
DPLDSPEXTSTOKEN	388	
DPLDSPEXTTTOKEN	374	
DPLDSQCU	238	
DPLDSTKN	B8	
DPLDUMMY	1C	40
DPLDUMPSRVALET	2F0	
DPLDWSFD	310	
DPLDWT	264	
DPLDWTCL	1D3	80
DPLEBUFF	C0	
DPLECB	1D2	20
DPLECBAD	1D8	
DPLENSUM	1D2	80
DPLEWRKP	C4	
DPLEXITD	B8	
DPLEXITINHIGHVIRTUAL	1C	10
DPLEXITT	236	
DPLFDECB	23C	
DPLFIRSTNOTCOPY	4	
DPLFLAGS	1D2	
DPLFLGS2	237	
DPLFLGWD	1D0	
DPLFWDPT	4	
DPLGETSDDIE	1D3	10
DPLHAID	262	
DPLHASHO	31C	
DPLHASHS	314	
DPLHDDRP	10	
DPLHSHNB	32C	
DPLID	0	
DPLINPRIVATE	1C	20



Table 624. Cross Reference for IHADPL (continued)

Name	Offset	Hex Tag
DPLINTKN	334	
DPLITPLEXNAME	344	
DPLITSYSNAME	334	
DPLITTIMESTAMP	33C	
DPLJOBNM	2FC	
DPLLASTNOTCOPY	30	
DPLLFDSF	1D2	04
DPLLOCALDSPEXTTABLE	388	
DPLLOCALDSPEXTTABLEINFO	374	
DPLLOCNM	1D0	
DPLNOHVCBUFF	1D3	01
DPLNOMC	1D3	02
DPLNOTCOPYFLAGS	1C	
DPLPDPXN	E8	
DPLPDPXP	EC	
DPLPRIVATEDPL@	2E8	
DPLPRIVATEDPLAREA@	2F8	
DPLPSDCO	B68	
DPLPSDCPAR	2DA	
DPLPTABL	E0	
DPLPTABS	E0	
DPLREDACTABLEDUMP	237	20
DPLREMO	1D3	40
DPLRMREQ	1D3	20
DPLROCDN	1D2	01
DPLSDAS	244	
DPLSDATP	40	
DPLSDATT	40	
DPLSDBA	B78	
DPLSDCOTGTEND	B70	
DPLSDCOTGTSTART	B68	
DPLSDDIE	370	
DPLSDEP	1D2	40
DPLSDNA	243	
DPLSDNUM	3C	
DPLSDRSN	1E8	
DPLSDSIZ	44	
DPLSDSMB	368	
DPLSDSP	34	

Table 624. Cross Reference for IHADPL (continued)

Name	Offset	Hex Tag
DPLSDUNL	1D2	02
DPLSES	304	
DPLSESF	304	
DPLSFDPL	308	
DPLSFFIXED	1D3	04
DPLSRBAD	1D8	
DPLSTR#	30C	
DPLSUBPOOL	14	
DPLSUMRY	34	
DPLSWT	C	
DPLSYSTEM	1C	80
DPLTPFRC	1D2	08
DPLTSOXT	1D2	10
DPLTUSID	1F8	
DPLUCBAD	1D4	
DPLWTECB	18	
DPLWTECB@	2F4	
DPNODUMP	1E6	
DPPROGRS	233	
DPRETCOD	1E4	
DPRETURN	1E7	
SDBAAVAIL	B9C	
SDBACURDRDA@	B80	
SDBACURDRDAFIXED	B9F	80
SDBACURZD@	B90	
SDBAFIRSTDRDA@	B78	
SDBAFLAGS	B9F	
SDBALASTBYTE@	B88	
SDBASSCSWORD@	B98	
SDBAWORKER	B9E	

## IHADWHDR information

### IHADWHDR programming interface information

IHADWHDR is a programming interface.

### IHADWHDR heading information

**Common name:** Dump Writing Structure Dump Header

**Macro ID:** IHADWHDR

**DSECT name:** DWHDR DwhdrDumpCntlsMap

**Owning component:** SVC Dump (SCDMP)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: N/A  
Key: N/A  
Residency: N/A

**Size:** DWHDRDUMPCNTLSMAP -- X'0200' bytes  
DWHDR -- X'2000' bytes

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** None required

**Function:** Provides a map of the dump header. There is one dump header per structure in the dump. It contains the structure controls, dumping controls, dumping status, dump tailoring options, and the associated request block.  
In the dump dataset, the dump header is located before the data associated with a given structure.

## IHADWHDR mapping

Table 625. Structure DWHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWHDR	Mapping for dump header
0	(0)	CHARACTER	256	DWHDRSTRCONTROLS	Structure controls
256	(100)	CHARACTER	1	DWHDROFFSET256	Byte 256
Bit definitions:					
		1... ....		DWHDRSTRMONOPSTATE	"X'80'" Dump-time monopolization state (DTMS). ON indicates that the structure was in the monopolized state at the beginning of the dumping process (CFLEVEL24)
257	(101)	CHARACTER	255		Reserved bytes 257-511
512	(200)	CHARACTER	512	DWHDRDUMPCONTROLS	
1024	(400)	CHARACTER	32	DWHDRDUMPSTATUS	Dumping status
1024	(400)	BITSTRING	1	DWHDRCAPCOMPCODE	Capture-completion code X'00' Capture-in-progress X'01' Normal completion X'02' Dump table full X'03' Serialization released
1025	(401)	CHARACTER	1		Reserved
1026	(402)	CHARACTER	2	DWHDRLASTOBJTYPE	Last dumping-object type. Object type of the object specified by the LOID operand. Valid only when the last range object contains a nonzero value.
1028	(404)	SIGNED	4	DWHDRLASTRANGE	Last range value processed by a dump request. Initialized to zero.
1032	(408)	SIGNED	4	DWHDRLASTOBJID	Last object identifier (LOID) processed by a dump request Valid only when both last range nonzero and last dumping-object-type X'0302', X'0401', or X'0402'

Table 625. Structure DWHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1036	(40C)	SIGNED	4	DWHDRLASTDIBCT	Last DIB count. Number of DIBs stored in the dump table for the object specified by the LOID. Valid only when last range nonzero.
1040	(410)	SIGNED	4	DWHDRLASTELEMCT	Last element count. Number of elements contained in the object specified by the LOID. Valid only when last range nonzero.
1044	(414)	SIGNED	4	DWHDRLASTDTEN	Last dump-table-entry number. Highest valued dump-table entry that contains a captured block.
1048	(418)	CHARACTER	8		Reserved
1056	(420)	CHARACTER	224		Reserved
1280	(500)	CHARACTER	8	DWHDRDUMPTLROPT	Dumping-tailoring options
1280	(500)	SIGNED	2	DWHDRDUMPLISTLEN	Dumping-list length. Number of ranges in the range list of a dump request
1282	(502)	CHARACTER	1		Reserved
1283	(503)	CHARACTER	1	DWHDRDUMPCACHEID	Identifier of an attached local-cache associated with the dump table. Zero => no local cache. Only maintained when the structure type is X'04'.
1283	(503)	CHARACTER	1		Reserved for list
1284	(504)	CHARACTER	4		Reserved
1288	(508)	CHARACTER	248		Reserved
1536	(600)	CHARACTER	512	DWHDREXTSTRCONTROLS	Extended Structure Controls
2048	(800)	CHARACTER	512	DWHDRSCC	Structure Copy Controls
2560	(A00)	CHARACTER	60	DWHDRDUPLEXINGCONTROLS	Duplexing Controls
2620	(A3C)	CHARACTER	196		Reserved
2816	(B00)	CHARACTER	256	DWHDREXTSTRCNTLS2	Extended Structure Controls 2 (CFLEVEL 25)
3072	(C00)	CHARACTER	512	DWHDRUSRSTRCNTL2	User Structure Control2 (CFLEVEL 22)
3584	(E00)	CHARACTER	512		Reserved
4096	(1000)	CHARACTER	4096	DWHDRASSOCREQBLK	Associated Request Block (ARB) Contains the dumping information and list of object-identifier ranges to be included in the dump. Also contains the dumping-object type, adjunct-inclusion indicator, and DIB-exclusion indicator for each object-identifier range. The ARB is provided in the data block of the associate-dump-table command when the dump table is created, and is copied into the dump header by the capture process. To view the contents of this area, use the ARB mapping found in IHAARB macro
4096	(1000)	X'2000'	0	DWHDR_LEN	"*-DWHDR"

Table 626. Structure DWHDRDUMPCNTLSMAP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWHDRDUMPCNTLSMAP	Mapping for dumping controls
0	(0)	CHARACTER	128	DWHDRDUMPINFO	Dumping Information
128	(80)	CHARACTER	128		Reserved
256	(100)	CHARACTER	16	DWHDRDUMPAUTH	Dumping authority. Zero => dumping controls available Nonzero => dumping controls in use

Table 626. Structure DWHDRDUMPCNTLSMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
272	(110)	CHARACTER	16	DWHDRDUMPSE	Dumping serialization. Nonzero => Dumping serialization held on the structure
288	(120)	SIGNED	4	DWHDRDUMPTBLSIZE	Dump-table size. Number of 4096-byte units of CF storage assigned to the dump table.
292	(124)	CHARACTER	1	DWHDSTRTYPE	Structure type
293	(125)	CHARACTER	1	DWHDRLFLAGS	
Bit definitions:					
		1... ..		DWHDRLNITCOMP	"X'80'" Initialization complete indicator
		.1.. ..		DWHDRLRELEASEINPROG	"X'40'" Release in progress indicator
294	(126)	CHARACTER	218		Reserved
Capture Complete Constants					
		.... ..		DWHDRCAPCMPCIP	"X'00'" Capture is in progress
		.... ..1		DWHDRCAPCMPOK	"X'01'" Normal completion
		.... ..1.		DWHDRCAPCMPTABFULL	"X'02'" Dump table is full
		.... ..11		DWHDRCAPCMPSERREL	"X'03'" Dump serialization was released
294	(126)	X'200'	0	DWHDRDUMPCNTLSMAP_LEN	"*-DWHDRDUMPCNTLSMAP"

Table 627. Cross Reference for IHADWHDR

Name	Offset	Hex	Tag
DWHDRL	0		
DWHDRL_LEN	1000		2000
DWHDRLASSOCREQBLK	1000		
DWHDRCAPCMPCIP	126		0
DWHDRCAPCMPOK	126		1
DWHDRCAPCMPSERREL	126		3
DWHDRCAPCMPTABFULL	126		2
DWHDRCAPCOMPCODE	400		
DWHDRLDUMPAUTH	100		
DWHDRLDUMPCACHEID	503		
DWHDRLDUMPCNTLSMAP	0		
DWHDRLDUMPCNTLSMAP_LEN	126		200
DWHDRLDUMPCNTROLS	200		
DWHDRLDUMPIFNO	0		
DWHDRLDUMPLISTLEN	500		
DWHDRLDUMPSER	110		
DWHDRLDUMPSTATUS	400		
DWHDRLDUMPTBLSIZE	120		
DWHDRLDUMPTLROPT	500		

Table 627. Cross Reference for IHADWHDR (continued)

Name	Offset	Hex Tag
DWHDRDUPLEXINGCONTROLS	A00	
DWHDREXTSTRCNTLS2	B00	
DWHDREXTSTRCONTROLS	600	
DWHDRFLAGS	125	
DWHDRINITCOMP	125	80
DWHDRLASTDIBCT	40C	
DWHDRLASTDTEN	414	
DWHDRLASTELEMCT	410	
DWHDRLASTOBJID	408	
DWHDRLASTOBJTYPE	402	
DWHDRLASTRANGE	404	
DWHDROFFSET256	100	
DWHDRRELEASEINPROG	125	40
DWHDRSCC	800	
DWHDRSTRCONTROLS	0	
DWHDRSTRMONOPSTATE	100	80
DWHDRSTRTYPE	124	
DWHDRUSRSTRCNTL2	C00	

## IHADWOBH information

### IHADWOBH programming interface information

The following fields are **NOT** programming interface information:

- DWOBHDIBCT
- DWOBHDIBLISTSIZE
- DWOBHDIBSIZE

### IHADWOBH heading information

<b>Common name:</b>	Dump Writing Object Header
<b>Macro ID:</b>	IHADWOBH
<b>DSECT name:</b>	DWOBH DWOBHOBHJHDRDATAMAP
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	DWOBH -- X'1000' bytes DWOBHOBHJHDRDATAMAP -- X'0006' bytes

**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None required  
**Function:** Provides a map of the Object Header.

## IHADWOBH mapping

Table 628. Structure DWOBH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWOBH	, Mapping for Object Header
0	(0)	CHARACTER	20	DWOBHOBJINFO(0)	Object information
0	(0)	SIGNED	2	DWOBHDUMPOBJTYPE	Dumping-object type (DOT). X'0301' => CF-list lock table X'0302' => CF-list list number X'0303' => CF-list user controls X'0304' => CF-list event-monitor controls X'0305' => CF-list event-queue X'0401' => CF-cache storage class X'0402' => CF-cache castout class X'0403' => CF-cache local- cache controls
2	(2)	CHARACTER 1... ....	1	DWOBHFLAGS(0) DWOBHCAPTCOMPIND	Flags "X'80'" Capture-complete indicator. 1 => capture complete 0 => additional elements exist on the element list that have not been captured in the dump table
3	(3)	CHARACTER	1		Reserved
4	(4)	SIGNED	4	DWOBHOBJID	Object identifier DOT Object identifier X'0301' => X'0000 0000' X'0302' => List-number value X'0303' => X'0000 0000' X'0304' => List-number value X'0305' => X'0000 0000' X'0401' => Storage-class value (right justified) X'0402' => Castout-class value (right justified) X'0403' => X'0000 0000'
8	(8)	SIGNED	4	DWOBHDIBCT	DIB count. Number of dumping-information blocks stored in the dump table for the object
12	(C)	SIGNED	4	DWOBHDIBSIZE	DIB size
16	(10)	SIGNED	4	DWOBHDIBLISTSIZE	DIB list size. Number of dump-table entries that contain the DIB list for the object.
20	(14)	CHARACTER	108	DWOBHOBJHDRDATA	Data relating to the object header - Use the DWOBHOBJHDRDATAMAP to view the contents of this area
128	(80)	CHARACTER	3456	DWOBHMAXPOSSIBLEOBJCONTROLS	Maximum possible object controls length. Refer to the actual mappings of the object controls to compute their associated lengths
4096	(1000)	X'1000'	0	DWOBH_LEN	"*-DWOBH"

Table 629. Structure DWOBHOBJHDRDATAMAP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWOBHOBJHDRDATAMAP	, Mapping for data relating to the Object Header
0	(0)	ADDRESS	4	(0)	
0	(0)	ADDRESS	4	DWOBHOBJHDRDATAENTRYCNTLPTR(0)	

Table 629. Structure DWOBJHOBHJHRRDATAMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Pointer to the object's entry controls in the controls compdata space. This pointer name should be used for cast out class, storage class, and list number object types
0	(0)	ADDRESS	4	DWOBJHOBHJHRRDATALOCKPTR(0)	Pointer to the object's lock table entries in the lock table compdata space. This pointer name should be used for lock table object type only
0	(0)	ADDRESS	4	DWOBJHOBHJHRRDATAUSERPTR(0)	Pointer to the object's user control data into the user control compdata space. This pointer name should be used for cache user or list user object types only
0	(0)	ADDRESS	4	DWOBJHOBHJHRRDATAEMCPTR(0)	Pointer to the object's event monitor control data in the event monitor control compdata space. This pointer name should be used for list event queue type only
0	(0)	ADDRESS	4	DWOBJHOBHJHRRDATAEVENTQPTR	Pointer to the object's event queue data in the event queue compdata space. This pointer name should be used for list event queue type only
4	(4)	CHARACTER	2	(0)	
4	(4)	CHARACTER	2	DWOBJHOBHJHRRDATAENTRYCNTLNUM(0)	Number that indicates which entry control compdata space the pointer pertains to. This variable name should be used for cast out class, storage class, and list number object types
4	(4)	CHARACTER	2	DWOBJHOBHJHRRDATALOCKNUM(0)	Number that indicates which lock table compdata space the pointer pertains to. This variable name should be used for lock table object type only
4	(4)	CHARACTER	2	DWOBJHOBHJHRRDATAUSERNUM(0)	Number that indicates which user control compdata space the pointer pertains to. This variable name should be used for cache user or list user object type only
4	(4)	CHARACTER	2	DWOBJHOBHJHRRDATAEMCNUM(0)	Number that indicates which event monitor control compdata space the pointer pertains to. This variable name should be used for list event queue type only
4	(4)	CHARACTER	2	DWOBJHOBHJHRRDATAEVENTQNUM	Number that indicates which event queue compdata space the pointer pertains to. This variable name should be used for list event queue type only
4	(4)	X'6'	0	DWOBJHOBHJHRRDATAMAP_LEN	"*-DWOBJHOBHJHRRDATAMAP"

Table 630. Cross Reference for IHADWOBJH

Name	Offset	Hex	Tag
DWOBJH	0		
DWOBJH_LEN	1000		1000
DWOBJHCAPTCOMPIND	2		80
DWOBJHDIBCT	8		
DWOBJHDIBLISTSIZE	10		



Table 630. Cross Reference for IHADWOBH (continued)

Name	Offset	Hex Tag
DWOBHDIBSIZE	C	
DWOBHDUMPOBJTYPE	0	
DWOBHFLAGS	2	
DWOBHMAXPOSSIBLEOBJCONTROLS	80	
DWOBHOBHHRDATA	14	
DWOBHOBHHRDATAEMCNUM	4	
DWOBHOBHHRDATAEMCPTR	0	
DWOBHOBHHRDATAENTRYCNTLNUM	4	
DWOBHOBHHRDATAENTRYCNTLPTR	0	
DWOBHOBHHRDATAEVENTQNUM	4	
DWOBHOBHHRDATAEVENTQPTR	0	
DWOBHOBHHRDATALOCKNUM	4	
DWOBHOBHHRDATALOCKPTR	0	
DWOBHOBHHRDATAMAP	0	
DWOBHOBHHRDATAMAP_LEN	4	6
DWOBHOBHHRDATAUSERNUM	4	
DWOBHOBHHRDATAUSERPTR	0	
DWOBHOBHID	4	
DWOBHOBHINFO	0	

## IHAECCC information

### IHAECCC programming interface information

IHAECCC is a programming interface.

### IHAECCC heading information

<b>Common name:</b>	External CPU Configuration Counters
<b>Macro ID:</b>	IHAECCC
<b>DSECT name:</b>	ECCC
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	ECCC Offset: X'0' Length: 4
<b>Storage attributes:</b>	Subpool: 239 Key: 0 Residency: Above 16M
<b>Size:</b>	ECCC -- X'0030' bytes
<b>Created by:</b>	IEAVNIPO (ipl CPU), IEEVCPRA (other CPU)
<b>Pointed to by:</b>	LCCXECCC, LCCXECCC_Prev

**Serialization:** Disablement

**Function:** Maps the area used for external CPU counters and other CPU diagnostic related information.

## IHAECCC mapping

Table 631. Structure ECCC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECCC	
0	(0)	CHARACTER	16	ECCC_HEADER	
0	(0)	CHARACTER	4	ECCC_ACRO	Acronym
4	(4)	SIGNED	4	ECCC_LENGTH	ECCC Length
8	(8)	CHARACTER	8		Reserved
16	(10)	CHARACTER	32	ECCC_DATA	
16	(10)	CHARACTER	20	ECCC_DATAAREA	
16	(10)	SIGNED	4	ECCC_WARNTRACK_SUCCESS	A count of the number of times the hardware issued a warning track to this logical CPU and z/OS was able to return the logical CPU to the hardware within the grace period.
20	(14)	SIGNED	4	ECCC_WARNTRACK_UNSUCCESSFUL	A count of the number of times the hardware issued a warning track to this logical CPU and z/OS was unable to return the logical CPU to the hardware within the grace period.
24	(18)	CHARACTER	8	ECCC_WARNTRACK_TIME	The cumulative TOD clock time this logical CPU was returned to the hardware for warning track.
32	(20)	SIGNED	4	ECCC_TOTAL_SIGPS_TO_WAITING_CPUS	With LOADxx PROCVIEW CPU in effect (CvtProcAsCore='0'b) the total SIGPs issued to waiting CPUs
32	(20)	SIGNED	4	ECCC_TOTAL_SIGPS_TO_WAITING_CORES	With LOADxx PROCVIEW CORE in effect (CvtProcAsCore='1'b) the total SIGPs issued to waiting cores. A waiting core means all online threads associated with the core are in a wait.
36	(24)	CHARACTER	12		Reserved
48	(30)	CHARACTER	1	ECCC_EXTCTRS_END(0)	
48	(30)	X'C3C3C3'	0	ECCC_ECCC	"C'ECCC"
48	(30)	X'14'	0	KECCC_CTRLLEN	"20" Length of ECCC data area. Note: Some ECCC counter/data may be 8-bytes long.
48	(30)	X'30'	0	ECCC_LEN	"*-ECCC"

Table 632. Cross Reference for IHAECCC

Name	Offset	Hex Tag
ECCC	0	
ECCC_ACRO	0	
ECCC_DATA	10	
ECCC_DATAAREA	10	

Table 632. Cross Reference for IHAEECC (continued)

Name	Offset	Hex Tag
ECCC_ECCC	30	C3C3C3
ECCC_EXTCTRS_END	30	
ECCC_HEADER	0	
ECCC_LEN	30	30
ECCC_LENGTH	4	
ECCC_TOTAL_SIGPS_TO_WAITING_CORES	20	
ECCC_TOTAL_SIGPS_TO_WAITING_CPUS	20	
ECCC_WARNTRACK_SUCCESS	10	
ECCC_WARNTRACK_TIME	18	
ECCC_WARNTRACK_UNSUCCESSFUL	14	
KECCC_CTRLLEN	30	14

## IHAENF84 information

### IHAENF84 programming interface information

IHAENF84 is a programming interface.

### IHAENF84 heading information

<b>Common name:</b>	Boost Event ENF mapping (event code 84)
<b>Macro ID:</b>	IHAENF84
<b>DSECT name:</b>	ENF84
<b>Owning component:</b>	Supervisor (SC1C5)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 247 for ENF signal Key: 0 Residency: Above 16M
<b>Size:</b>	ENF84 -- X'0030' bytes
<b>Created by:</b>	Boost processing, provided to ENF listeners for event 084.
<b>Pointed to by:</b>	R1 on entry to ENF listening routine
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the data provided for ENF event 084.

### IHAENF84 mapping

Table 633. Structure ENF84

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF84	Boost event ENF signal parameter list
0	(0)	BITSTRING	1	ENF84_VERSION	Current version=1
1	(1)	BITSTRING	1	ENF84_FLAGS	Flags

Table 633. Structure ENF84 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Bit definitions:					
		1... ....		ENF84_ZIIPBOOSTACTIVE	"X'80'" For the "boosts end" events, the boost was active. For the "boost start" events, the boost was activated. For the "RP boost extend" event, the boost is active.
		.1... ....		ENF84_SPEEDBOOSTACTIVE	"X'40'" For the "boosts end" events, the boost was active. For the "boost start" events, the boost was activated. For the "RP boost extend" event, the boost is active.
		...1 ....		ENF84_BOOSTEND_SDBOOSTSREQUESTED	"X'10'" For the "boosts end" events other than "shutdown boost end", shutdown boost has been requested.
		.... 1...		ENF84_RPB_DISABLED	"X'08'" When 1, RP boosts are disabled. When 0, RP boosts are enabled
		.... .111		ENF84_BOOSTCLASS	"X'07'" See ENF84_BoostClass_xxx. Not valid for the RPBoosts_EnabDisab event.
2	(2)	BITSTRING	1	ENF84_RPBBOOSTS_REQUESTOR_ID	For the "RPBoosts Start" and "RPBoosts Extend" events only. See equates ENF84_RPBReq_xxx.
3	(3)	CHARACTER	1		Reserved
4	(4)	SIGNED	4	ENF84_EVENT	The boost event. See equates beginning ENF84_Event
8	(8)	CHARACTER	8	ENF84_RPB00ST_START_ETOD_0_7	For RPBoost Start, RPBoost Extend, and RPBoost End events, bytes 0 to 7 of the ETOD when the boost started. Valid only when ENF84_Version > 0.
16	(10)	CHARACTER	8	ENF84_RPB00ST_END_ETOD_0_7	For RPBoost Start, RPBoost Extend, and RPBoost End events, bytes 0 to 7 of an ETOD. For start and extend, it is the expected end of the boost (but the end time could be extended if there are overlapping RP Boost events). For end, it is the end of the boost. Valid only when ENF84_Version > 0.
24	(18)	CHARACTER	8	ENF84_RPB00ST_MID_PROCNAME	The PROC name from CSCB field CHMEMNAM. Valid only for RPBoost Start and Extend events for requestor Middleware Region Startup. Valid only when ENF84_Version > 0.
32	(20)	CHARACTER	8	ENF84_RPB00ST_MID_STEPNAME	The step ID from CSCB field CHKEY (step name for a started task). Valid only for RPBoost Start and Extend events for requestor Middleware Region Startup. Valid only when ENF84_Version > 0.
40	(28)	CHARACTER	8	ENF84_RPB00ST_MID_PGMNAME	The jobstep program name. Valid only for RPBoost Start and Extend events for requestor Middleware Region Startup. Valid only when ENF84_Version > 0.
40	(28)	X'0'	0	ENF84_VERSION_INITIAL	"0"
40	(28)	X'1'	0	ENF84_VERSION_SRB4	"1"
40	(28)	X'1'	0	ENF84_EVENT_IPLB00STS_START	

Table 633. Structure ENF84 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"1" Application code might not be able to be started early enough to listen for, and receive, this event. Such code should examine the boost information in the ECVT
40	(28) X'2'		0	ENF84_EVENT_IPLBOOSTS_END	"2"
40	(28) X'3'		0	ENF84_EVENT_SHUTDOWNBOOSTS_START	"3"
40	(28) X'4'		0	ENF84_EVENT_SHUTDOWNBOOSTS_END	"4"
40	(28) X'5'		0	ENF84_EVENT_RPBBOOSTS_START	"5"
40	(28) X'6'		0	ENF84_EVENT_RPBBOOSTS_EXTEND	"6"
40	(28) X'7'		0	ENF84_EVENT_RPBBOOSTS_END	"7"
40	(28) X'8'		0	ENF84_EVENT_RPBBOOSTS_ENABDISAB	"8" Besides the event, the only valid field is the bit ENF84_RPB_Disabled
40	(28) X'9'		0	ENF84_EVENT_RPBBOOSTS_INFO	"9" This event is for SMF's usage. The only valid field is ENF84_Event.
Boost Class equates. "AND" the byte with this mask and compare the result to the equate if you want to check the class					
	.... .111			ENF84_BOOSTCLASS_MASK	"X'07' "
	.... ...1			ENF84_BOOSTCLASS_IPL	"B'00000001' "
	.... ..1.			ENF84_BOOSTCLASS_SHUTDOWN	"B'00000010' "
	.... ..11			ENF84_BOOSTCLASS_RP	"B'00000011' "
Recovery Process Boost requestor constants					
40	(28) X'0'		0	ENF84_RPBREQ_NOT_IDENTIFIED	"0"
40	(28) X'1'		0	ENF84_RPBREQ_SYSPLEX_PARTITIONING	"1"
40	(28) X'2'		0	ENF84_RPBREQ_CF_STRUCTURE_RECOV	"2"
40	(28) X'3'		0	ENF84_RPBREQ_CF_DATASHARING_MEMBER_RECOV	"3"
40	(28) X'4'		0	ENF84_RPBREQ_HYPERSWAP	"4"
40	(28) X'5'		0	ENF84_RPBREQ_SVCDUMP	"5"
40	(28) X'6'		0	ENF84_RPBREQ_MIDDLEWARE_REGION_STARTUP	"6"
40	(28) X'7'		0	ENF84_RPBREQ_HYPERSWAP_CONFIG_LOAD	"7"
40	(28) X'8'		0	ENF84_RPBREQ_DYNAMIC_IO_ACTIVATE	"8"
40	(28) X'30'		0	ENF84_LEN	"*-ENF84"

Table 634. Cross Reference for IHAENF84

Name	Offset	Hex Tag
ENF84	0	
ENF84_BOOSTCLASS	1	7
ENF84_BOOSTCLASS_IPL	28	1
ENF84_BOOSTCLASS_MASK	28	7
ENF84_BOOSTCLASS_RP	28	3
ENF84_BOOSTCLASS_SHUTDOWN	28	2
ENF84_BOOSTEND_SDBOOSTSREQUESTED	1	10
ENF84_EVENT	4	
ENF84_EVENT_IPLBOOSTS_END	28	2
ENF84_EVENT_IPLBOOSTS_START	28	1
ENF84_EVENT_RPBBOOSTS_ENABDISAB	28	8
ENF84_EVENT_RPBBOOSTS_END	28	7
ENF84_EVENT_RPBBOOSTS_EXTEND	28	6
ENF84_EVENT_RPBBOOSTS_INFO	28	9
ENF84_EVENT_RPBBOOSTS_START	28	5
ENF84_EVENT_SHUTDOWNBOOSTS_END	28	4
ENF84_EVENT_SHUTDOWNBOOSTS_START	28	3
ENF84_FLAGS	1	
ENF84_LEN	28	30
ENF84_RPB_DISABLED	1	8
ENF84_RPBBOOST_END_ETOD_0_7	10	
ENF84_RPBBOOST_MID_PGMNAME	28	
ENF84_RPBBOOST_MID_PROCNAME	18	
ENF84_RPBBOOST_MID_STEPNAME	20	
ENF84_RPBBOOST_START_ETOD_0_7	8	
ENF84_RPBBOOSTS_REQUESTOR_ID	2	
ENF84_RPBREQ_CF_DATASHARING_MEMBER_RECOV	28	3
ENF84_RPBREQ_CF_STRUCTURE_RECOV	28	2
ENF84_RPBREQ_DYNAMIC_IO_ACTIVATE	28	8
ENF84_RPBREQ_HYPERSWAP	28	4
ENF84_RPBREQ_HYPERSWAP_CONFIG_LOAD	28	7
ENF84_RPBREQ_MIDDLEWARE_REGION_STARTUP	28	6
ENF84_RPBREQ_NOT_IDENTIFIED	28	0
ENF84_RPBREQ_SVCDUMP	28	5
ENF84_RPBREQ_SYSPLEX_PARTITIONING	28	1
ENF84_SPEEDBOOSTACTIVE	1	40
ENF84_VERSION	0	
ENF84_VERSION_INITIAL	28	0
ENF84_VERSION_SRB4	28	1

Table 634. Cross Reference for IHAENF84 (continued)

Name	Offset	Hex Tag
ENF84_ZIIPBOOSTACTIVE	1	80

## IHAESSA information

### IHAESSA heading information

<b>Common name:</b>	Extended Status Save Area
<b>Macro ID:</b>	IHAESSA
<b>DSECT name:</b>	ESSA
<b>Owning component:</b>	Supervisor (SC1C5)
<b>Eye-catcher ID:</b>	ESSA Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 239 (SRB), 253 (task), 255 (IHSA) Key: 0 Residency: Above-16M
<b>Size:</b>	ESSA -- X'0230' bytes
<b>Created by:</b>	Created by IEAVEFPS, IEAVEFPR, IEAVEMIN, IEAMSWCB
<b>Pointed to by:</b>	STCBESSA, SSRxESSA, IHSAESSA
<b>Serialization:</b>	Workunit-Active
<b>Function:</b>	Maps the vector register and GSF status save area

### IHAESSA mapping

Table 635. Structure ESSA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ESSA	
0	(0)	CHARACTER	16	ESSAHEADER	Beginning of static portion of ESSA
0	(0)	CHARACTER	4	ESSAID	'ESSA'
4	(4)	CHARACTER	12	ESSAR004	Reserved
16	(10)	CHARACTER	512	ESSAVR	Savearea for vector regs
528	(210)	CHARACTER	32	ESSAGSCB	Savearea for GSF controls (the 'GSCB')
528	(210)	X'E2E2C1'	0	ESSAIDCHARS	"C'ESSA'"
528	(210)	X'FD'	0	ESSASUBPOOL_TASK	"253" ELSQA for task
528	(210)	X'EF'	0	ESSASUBPOOL_SRB	"239" ESQA for SRB
528	(210)	X'230'	0	ESSA_LEN	"*-ESSA"

Table 636. Cross Reference for IHAESSA

Name	Offset	Hex Tag
ESSA	0	
ESSA_LEN	210	230

Table 636. Cross Reference for IHAESSA (continued)

Name	Offset	Hex Tag
ESSAGSCB	210	
ESSAHEADER	0	
ESSAID	0	
ESSAIDCHARS	210	E2E2C1
ESSAR004	4	
ESSASUBPOOL_SRB	210	EF
ESSASUBPOOL_TASK	210	FD
ESSAVR	10	

## IHAETE1 information

### IHAETE1 heading information

<b>Common name:</b>	Entry Table Entry for ESAME
<b>Macro ID:</b>	IHAETE1
<b>DSECT name:</b>	ETE1
<b>Owning component:</b>	PC/AUTH (SCXMS)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 255 Key: 0 Residency: PC/Auth LSQA
<b>Size:</b>	32 bytes
<b>Created by:</b>	IEAVXECR, deleted by IEAVXEDE
<b>Pointed to by:</b>	Linkage table entries (mapped by IHALTE). The Entry Table is pointed to by ETIBETR (real address) and ETIBETV (virtual address).
<b>Serialization:</b>	LOCAL lock of the PC/Auth address space
<b>Function:</b>	Describes an entry in an entry table (used by the Program Call instruction). ETE1 maps the ESAME ETE.

### IHAETE1 mapping

Table 637. Structure ETE1

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	32	ETE1	ENTRY TABLE ENTRY DESCRIPTION
0	(0)	ADDRESS	4	ETE1EPA0	First word of EPA when AMODE 64
4	(4)	ADDRESS	4	ETE1EPA	VIRTUAL ADDRESS OF ROUTINE TO RECEIVE CONTROL
4	(4)	CHARACTER	1	ETE1ABYTE	BYTE TO ACCESS ETE1AMODE



Table 637. Structure ETE1 (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		ETE1AMODE	Addressing mode: if 1, routine executes in 31-bit mode. If 0, routine executes in 24-bit mode, unless bit 31 of new PSW=1 in which case 64-BIT
5	(5)	CHARACTER	2	*	PART OF ETE1EPA - NOT REFERENCEABLE
7	(7)	CHARACTER	1	ETE1PBYTE	BYTE TO ACCESS ETE1PS
		1111 111.		*	NOT REFERENCEABLE
		.... ...1		ETE1PS	CALLED ROUTINE EXECUTES (0) SUPERVISOR OR (1) PROBLEM STATE
8	(8)	BITSTRING	2	ETE1AKM	MASK OF STORAGE KEYS AUTHORIZED TO INVOKE THIS ROUTINE
10	(A)	BITSTRING	2	ETE1ASID	ASID IN WHICH THE CALLED ROUTINE WILL EXECUTE - IF ZERO, ROUTINE EXECUTES IN CALLERS ADDRESS SPACE SPACE SWITCH IF NOT ZERO
12	(C)	BITSTRING	2	ETE1EKM	KEY MASK TO BE COMBINED WITH CALLERS KEY MASK PRODUCING THE EXECUTION KEY MASK OF THE CALLED ROUTINE
14	(E)	CHARACTER	2	ETE1R00E	RESERVED FIELD
16	(10)	CHARACTER	1	ETE1OPTB1	ETE OPTIONS BYTE
		1... ....		ETE1PCTC	PC TYPE CONTROL: 0: NON-STACKING. 1: STACKING.
		.1.. ....		ETE1PC64	PC extended addressing mode: 0: PC.31 set to 0 (basic mode) 1: PC.31 set to 1 (64-bit)
		..1. ....		*	
		...1 ....		ETE1PKC	PSW KEY CONTROL: 0: NO CHANGE 1: SET PSW KEY FROM ETE1EK
		.... 1...		ETE1PKMK	PSW KEY MASK CONTROL: 0: OR ETE1EKM INTO PKM. 1: COPY ETE1EKM TO PKM
		.... .1..		ETE1EAXC	EAX CONTROL: 0: NO CHANGE. 1: REPLACE FROM ETE1EAX.
		.... ..1.		ETE1ASC	ADDRESS SPACE CONTROL: 0: PRIMARY MODE. 1: AR MODE.
		.... ...1		ETE1SASNC	SASN CONTROL: 0: SET TO OLD PASN. 1: SET TO NEW PASN.
17	(11)	CHARACTER	1	ETE1EK	ENTRY KEY. (HIGH 4 BITS)
18	(12)	UNSIGNED	2	ETE1EAX	MAS EXTENDED AUTHORITY INDEX
20	(14)	ADDRESS	4	ETE1ASTE	REAL ADDRESS OF THE ASTE IF SPACE SWITCH
24	(18)	CHARACTER	8	ETE1PARM	ADDRESS OF THE LATENT PARAMETER PASSED TO THE CALLED RTN
24	(18)	ADDRESS	4	ETE1PARMH	High half of parameter
28	(1C)	ADDRESS	4	ETE1PARML	Low half of parameter
32	(20)	CHARACTER	0	ETE1END	END OF ETE1

Table 638. Cross Reference for IHAETE1

Name	Offset	Hex Tag
ETE1	0	
ETE1ABYTE	4	
ETE1AKM	8	
ETE1AMODE	4	80

Table 638. Cross Reference for IHAETE1 (continued)

Name	Offset	Hex Tag
ETE1ASC	10	02
ETE1ASID	A	
ETE1ASTE	14	
ETE1EAX	12	
ETE1EAXC	10	04
ETE1EK	11	
ETE1EKM	C	
ETE1END	20	
ETE1EPA	4	
ETE1EPA0	0	
ETE10PTB1	10	
ETE1PARM	18	
ETE1PARMH	18	
ETE1PARML	1C	
ETE1PBYTE	7	
ETE1PCTC	10	80
ETE1PC64	10	40
ETE1PKC	10	10
ETE1PKMK	10	08
ETE1PS	7	01
ETE1R00E	E	
ETE1SASNC	10	01

## IHAETRI information

### IHAETRI programming interface information

IHAETRI is a programming interface.

### IHAETRI heading information

<b>Common name:</b>	ETR Status Information Mapping
<b>Macro ID:</b>	IHAETRI
<b>DSECT name:</b>	ETRI
<b>Owning component:</b>	SC1CV (Timer)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Residency: In user's storage.
<b>Size:</b>	24 bytes
<b>Created by:</b>	Invokers of the IEAMETR macro

**Pointed to by:** Values specified via the OUTADDR parameter on IEAMETR macro invocations

**Serialization:** None

**Function:** Provide data mapping of the output from the IEAMETR macro service routine.

## IHAETRI mapping

Table 639. Structure ETRI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ETRI	
0	(0)	DBL WORD	8	ETRIDATA(0)	
0	(0)	BITSTRING	8	ETRITMSTMP(0)	STCK value at time information was collected.
0	(0)	BITSTRING	4	ETRITIMEH	
4	(4)	BITSTRING	4	ETRITIMEL	
8	(8)	CHARACTER	4	ETRIIMAGE(0)	This word contains information for the whole MVS image.
8	(8)	BITSTRING	1		
		1... ....		ETRIETR	"X'80'" Image is in ETR mode.
		.1.. ....		ETRILOCAL	"X'40'" Image is in local mode.
		..1. ....		ETRISIMETR	"X'20'" Image is in SIMETR mode.
		...1 ....		ETRINOTINSTALLED	"X'10'" ETR is not installed on this machine.
		.... 1...		ETRISIDE	"X'08'" Active machine side if in ETR mode.
		.... .1..		ETRITUNED	"X'04'" The active port is tuned.
		.... ..1.		ETRIREQSTD	"X'02'" The use of the ETR was requested.
		.... ...1		ETRICPLD	"X'01'" The 9037 to which this MVS is attached is part of a High Availability Configuration.
9	(9)	BITSTRING	1	ETRISIMETRID	Net ID if in SIMETR mode.
10	(A)	BITSTRING	2		Reserved.
12	(C)	CHARACTER	4	ETRIPORT0(0)	Status for CPC port 0.
12	(C)	BITSTRING	1	ETRIP0FLAGS	
		1... ....		ETRIP0OPER	"X'80'" This port is operational.
		.1.. ....		ETRIP0ENABLED	"X'40'" This port is enabled.
		..1. ....		ETRIP0ACTIVE	"X'20'" This port is the active port.
		...1 ....		ETRIP0DATA	"X'10'" The ID data is valid.
13	(D)	BITSTRING	1	ETRIP0NETID	ETR Net ID to which this port is connected.
14	(E)	BITSTRING	1	ETRIP0ETRID	9037 ID to which this port is connected.
15	(F)	BITSTRING	1	ETRIP0PORTN0	ETR port number to which this port is connected.
16	(10)	CHARACTER	4	ETRIPORT1(0)	Status for CPC port 1.
16	(10)	BITSTRING	1	ETRIP1FLAGS	
		1... ....		ETRIP1OPER	"X'80'" This port is operational.
		.1.. ....		ETRIP1ENABLED	"X'40'" This port is enabled.
		..1. ....		ETRIP1ACTIVE	"X'20'" This port is the active port.

Table 639. Structure ETRI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		ETRIP1DATA	"X'10'" The ID data is valid.
17	(11)	BITSTRING	1	ETRIP1NETID	ETR Net ID to which this port is connected.
18	(12)	BITSTRING	1	ETRIP1ETRID	9037 ID to which this port is connected.
19	(13)	BITSTRING	1	ETRIP1PORTN0	ETR port number to which this port is connected.
20	(14)	CHARACTER	4		Reserved.

Table 640. Cross Reference for IHAETRI

Name	Offset	Hex Tag
ETRI	0	
ETRICPLD	8	1
ETRIDATA	0	
ETRIETR	8	80
ETRIIMAGE	8	
ETRILOCAL	8	40
ETRINOTINSTALLED	8	10
ETRIPORT0	C	
ETRIPORT1	10	
ETRIPOACTIVE	C	20
ETRIPODATA	C	10
ETRIPOENABLED	C	40
ETRIPOETRID	E	
ETRIPOFLAGS	C	
ETRIPONETID	D	
ETRIPOOPER	C	80
ETRIPOPORTN0	F	
ETRIPO1ACTIVE	10	20
ETRIPO1DATA	10	10
ETRIPO1ENABLED	10	40
ETRIPO1ETRID	12	
ETRIPO1FLAGS	10	
ETRIPO1NETID	11	
ETRIPO1OPER	10	80
ETRIPO1PORTN0	13	
ETRIREQSTD	8	2
ETRISIDE	8	8
ETRISIMETR	8	20
ETRISIMETRID	9	
ETRITIMEH	0	

Table 640. Cross Reference for IHAETRI (continued)

Name	Offset	Hex	Tag
ETRITIMEL	4		
ETRITMSTMP	0		
ETRITUNED	8		4

## IHAFACL information

### IHAFACL programming interface information

IHAFACL is a programming interface.

### IHAFACL heading information

<b>Common name:</b>	Facilities List
<b>Macro ID:</b>	IHAFACL
<b>DSECT name:</b>	FACL
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	FACL -- X'0088' bytes
<b>Created by:</b>	IEAVNIPO
<b>Pointed to by:</b>	ECVTFACL
<b>Serialization:</b>	None needed
<b>Function:</b>	Maps the Facility List produced by the STFLE instruction The first 32 bytes of Facldata can also be used to map the bits within the FlceFacilitiesList and FlceFacilitiesList1 areas of IHAPSAE. You can use USING Facldata,FlceFacilitiesList to map Facldata on top of the area in the PSA.

### IHAFACL mapping

Table 641. Structure FACL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FACL	
0	(0)	CHARACTER	8	FACLHEADER	
0	(0)	CHARACTER	4	FACLID	'FACL'
4	(4)	CHARACTER	2		Reserved

Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
6	(6)	SIGNED	2	FACLDATALEN	The length of Facldata in bytes. This area is architecturally limited to 2048 bytes. It will be at least 128 bytes. If you are not sure whether the area is long enough to contain the facility bit you want to check, check that this field indicates that the area encompasses the bit. For example, if there were a bit 1200 (0-origin) that you wanted to check, make sure that the length is at least 151. Do not rely on the length of Facldata remaining unchanged from release to release.
8	(8)	CHARACTER	128	FACLDATA	The facilities list
8	(8)	CHARACTER	16	FACLBYES0T015	
8	(8)	BITSTRING	1	FACLBYTE0	Bits 0-7
Bit definitions:					
		1... ..		FACLZARCHN3	"X'80'" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		1... ..		FACLESAMEN3	"X'80'" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		.1.. ..		FACLZARCHINSTALLED	"X'40'" The z/Architecture mode is installed on the CPU
		.1.. ..		FACLESAMEINSTALLED	"X'40'" The z/Architecture mode is installed on the CPU
		..1. ....		FACLZARCH	"X'20'" The z/Architecture mode is active on the CPU
		..1. ....		FACLESAME	"X'20'" The z/Architecture mode is active on the CPU
		...1 ....		FACLIDTEINSTALLED	"X'10'" IDTE is installed
		.... 1..		FACLIDTECLEARINGCOMBINEDSEGMENT	"X'08'" IDTE does clearing of combined entries upon segment-table entry invalidation
		.... .1..		FACLIDTECLEARINGCOMBINEDREGION	"X'04'" IDTE does clearing of combined entries upon region-table entry invalidation
		.... ..1.		FACLASNANDLXREUSEINSTALLED	"X'02'" The ASN and LX reuse facility is installed on the CPU
		.... ...1		FACLSTFLE	"X'01'" STFLE instruction is available
9	(9)	BITSTRING	1	FACLBYTE1	Bits 8-15
Bit definitions:					
		1... ..		FACLEDATFEAT	"X'80'" DAT features
		.1.. ..		FACLSENSERUNNINGSTATUS	"X'40'" sense-running-status facility
		..1. ....		FACLCONDSSKEINSTALLED	"X'20'" The conditional SSKE instruction is installed
		...1 ....		FACLCONFIGURATIONTOPOLOGY	"X'10'" STSI-enhancement for configuration topology
		.... 1..		FACLQCQIF	"X'08'" 110524
		.... .1..		FACLIPTERANGE	"X'04'" IPTE-range facility is installed

Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
10	(A)	.... ..1.	1	FACLNONQKEYSETTING	"X'02'" Nonquiescing key-setting facility is installed
		.... ...1		FACLAPFT	"X'01'" The APFT facility is installed 091111
		BITSTRING		FACLBYTE2	Bits 16-23
Bit definitions:					
11	(B)	1... ....	1	FACLETf2	"X'80'" Extended translation facility 2 is present
		.1.. ....		FACLCRYPTOASSIST	"X'40'" The cryptographic assist is present
		.1.. ....		FACLMESSAGESECURITYASSIST	"X'40'" The message security assist is present
		..1. ....		FACLLONGDISPLACEMENT	"X'20'" The long displacement facility is installed in the z/Architecture mode
		...1 ....		FACLLONGDISPLACEMENTHP	"X'10'" The long displacement facility has high performance. Bit FacLongDisplacement will also be on.
		.... 1...		FACLHFPMAS	"X'08'" The HFP Multiply add/subtract facility is installed
		.... .1..		FACLEXTENDEDIMMEDIATE	"X'04'" The extended immediate facility is installed in the z/Architecture mode
		.... ..1.		FACLETf3	"X'02'" The extended translation facility 3 is installed in the z/Architecture mode
		.... ...1		FACLHFPUNNORMEXTENSION	"X'01'" The HFP unnormalized extension facility is installed
11	(B)	BITSTRING	1	FACLBYTE3	Bits 24-31
Bit definitions:					
12	(C)	1... ....	1	FACLETf2E	"X'80'" ETF2 enhancement is present
		.1.. ....		FACLSTCKF	"X'40'" STCKF enhancement is present
		..1. ....		FACLPARSE	"X'20'" Parsing enhancement facility is present
		.... 1...		FACLTCSF	"X'08'" TOD clock steering facility
		.... ..1.		FACLETf3E	"X'02'" ETF3 enhancement is present
		.... ...1		FACLECTf	"X'01'" Extract Cpu Time facility
12	(C)	BITSTRING	1	FACLBYTE4	Bits 32-39
Bit definitions:					
		1... ....		FACLCSSF	"X'80'" Compare-and-swap-and-store facility
		.1.. ....		FACLCSSF2	"X'40'" Compare-and-swap-and-store facility
		..1. ....		FACLGNERALINTEXTENSION	"X'20'" General-Instructions-Extension Facility
		...1 ....		FACLEXECUTEEXTf	"X'10'" Execute Extension Facility
		.... 1...		FACLENHANCEDMONITOR	"X'08'" The Enhanced Monitor facility is supported.
		.... .1..		FACLFPEXTENSION	"X'04'" FP Extension
		.... ..1.		FACLODERPRESERVINGCOMP	"X'02'" Order-preserving compression

Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		FACLOBSOLETECPUMEASUREMENT	"X'01'" Obsolete. Meant CPU-measurement facility supported. Use FaclCpuMeasurementCounter & FaclCpuMeasurementSampling
13	(D)	BITSTRING	1	FACLBYTE5	Bits 40-47
Bit definitions:					
		1... ....		FACLSETPROGRAMPARM	"X'80'" Set-Program-Parameter facility is supported
		.1.. ....		FACLPSEF	"X'40'" Floating-point-support enhancement facility
		..1. ....		FACLDFFP	"X'20'" Decimal-floating-point facility
		...1 ....		FACLDFFPHF	"X'10'" Decimal-floating-point facility high performance
		.... 1...		FACLPFPO	"X'08'" PFPO instruction 070424
		.... .1..		FACLDISTINCTOPERANDS	"X'04'"
		.... .1..		FACLHIGHWORD	"X'04'"
		.... .1..		FACLOADSTOREONCONDITION	"X'04'"
		.... .1..		FACLPOPULATIONCOUNT	"X'04'"
		.... ...1		FACLCMEF	"X'01'" Possible future enhancement
14	(E)	BITSTRING	1	FACLBYTE6	Bits 48-55
Bit definitions:					
		1... ....		FACLDFPZONECONVERSION	"X'80'" Bit 48: Decimal floating point zone-conversion facility
		.1.. ....		FACLMISCINTEXT	"X'40'" Bit 49
		.1.. ....		FACLEXECUTIONHINT	"X'40'" Bit 49
		.1.. ....		FACLOADANDTRAP	"X'40'" Bit 49
		.1.. ....		FACLBIT49	"X'40'" Bit 49
		..1. ....		FACLCONSTRAINEDTX	"X'20'" Bit 50. Even if this bit if on, do not use Constrained TX unless bit CVTXXC is on (you may alternately check bit PSATXC)
		...1 ....		FACLLOCALTLBCLEARING	"X'10'" Local-TLB-clearing facility
		.... 1...		FACLIAF2	"X'08'" Bit 52: Interlocked access facility
		.... .1..		FACL_LOADSTOREONCOND2	"X'04'" Bit 53
		.... .1..		FACL_LOADZERORIGHTMOSTBYTE	"X'04'" Bit 53
		.... ..1.		FACLEEC	"X'02'" Bit 54
		.... ...1		FACL_CTEND	"X'01'" Bit 55
15	(F)	BITSTRING	1	FACLBYTE7	Bits 56-63
Bit definitions:					
		1... ....		FACL_STPTODCS	"X'80'" Bit 56
		.1.. ....		FACLMSAE5	"X'40'" Bit 57
		..1. ....		FACLMIE2	"X'20'" Bit 58
		...1 ....		FACLSA	"X'10'" Bit 59
		.... 1...		FACLTISI	"X'08'" Bit 60
		.... .1..		FACLMIE3	"X'04'" Bit 61



Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	BITSTRING	1	FACLBYTE8	Bits 64-71
Bit definitions:					
		1... ....		FACLRI	"X'80'" FacLRI
		.1.. ....		FACLCRYPTOAPQAI	"X'40'" Crypto AP-Queue adapter interruption
		...1 ....		FACLCPU MEASUREMENTCOUNTER	"X'10'" CPU-measurement counter facility
		.... 1...		FACLCPU MEASUREMENTSAMPLING	"X'08'" CPU-measurement sampling facility
		.... .1..		FACLSCLP	"X'04'" Possible future enhancement
		.... ..1.		FACLAISI	"X'02'" Bit 70: AISI facility
		.... ...1		FACLAEN	"X'01'" Bit 71: AEN facility
17	(11)	BITSTRING	1	FACLBYTE9	Bits 72-79
Bit definitions:					
		1... ....		FACLAIS	"X'80'" Bit 72: AIS facility
		.1.. ....		FACLTRANSACTIONALEXECUTION	"X'40'" Bit 73. Even if this bit is on, do not use TX unless bit CVTTX is on (you may alternately check bit PSATX)
		..1. ....		FACLSTOREHYPERVISORINFO	"X'20'" Bit 74: The store-hypervisor-information facility
		...1 ....		FACLACCESSEXCEPTIONFSI	"X'10'" Bit 75: Access exception fetch/store-indication facility
		.... 1...		FACLMSA3	"X'08'" Bit 76: MSA3 facility
		.... .1..		FACLMSA4	"X'04'" Bit 77: MSA4 facility
		.... ..1.		FACLEDAT2	"X'02'" Bit 78: EDAT2
18	(12)	BITSTRING	1	FACLBYTE10	Bits 80-87
Bit definitions:					
		1... ....		FACL_DFPPACKEDCONVERSION	"X'80'" Bit 80
		.... 1...		FACLMIE4	"X'08'" Bit 84: MIE4
		.... ..1.		FACL_M1	"X'02'" Bit 86
		.... ...1		FACL_PLOE	"X'01'" Bit 87: PLOE
19	(13)	BITSTRING	1	FACLBYTE11	Bits 88-95
20	(14)	BITSTRING	1	FACLBYTE12	Bits 96-103
21	(15)	BITSTRING	1	FACLBYTE13	Bits 104-111
22	(16)	BITSTRING	1	FACLBYTE14	Bits 112-119
23	(17)	BITSTRING	1	FACLBYTE15	Bits 120-127
24	(18)	CHARACTER	16	FACLBYTES16T031	
24	(18)	BITSTRING	1	FACLBYTE16	Bits 128-135
Bit definitions:					
		1... ....		FACL_DELAYFACILITY	"X'80'" Bit 128
		.1.. ....		FACL_VECTOREXTENSIONFACILITY	"X'40'" Bit 129. z13 Even if this bit is on, do not use the VEF unless bit CVTVEF is on.

Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		FACLZ1	"X'40'" Bit 129
		..1. ....		FACL_INSTEXECPROTFACILITY	"X'20'" Bit 130
		..1. ....		FACL_IFSUPPRESSIONFACILITY	"X'20'" Bit 130
		...1 ....		FACL_SIDEFFECTFACILITY	"X'10'" Bit 131
		.... 1...		FACL_CLOSEFACILITY	"X'08'" Bit 132
		.... .1..		FACL_GSF	"X'04'" Bit 133. Even if this bit is on, do not use the GSF unless bit CVTGSF is on.
		.... ..1.		FACL_VBCD	"X'02'" Bit 134. z14 Vector Binary-coded decimal (BCD). Even if this bit is on, do not use the VBCD unless bit CVTVEF is on.
		.... ..1.		FACL_RTI_FCMODFACILITY	"X'02'" Old name
		.... ...1		FACL_VEF1	"X'01'" Bit 135 z14 Vector Enhancements Facility 1 Even if this bit is on, do not use the VEF1 unless bit CVTVEF is on.
25	(19)	BITSTRING	1	FACLBYTE17	Bits 136-143
Bit definitions:					
		1... ....		FACL_SHAREDTLB	"X'80'" Bit 136
		...1 ....		FACL_MULTIPLEPOCH	"X'10'" Bit 139
		...1 ....		FACL_TODCLOCKEPOCHFACILITY	"X'10'" Bit 139
		.... ..1.		FACL_STORECPUCTRMULTIPLE	"X'02'" Bit 142
		.... ...1		FACL_SCALEDCPU TIMER	"X'01'" Bit 143
26	(1A)	BITSTRING	1	FACLBYTE18	Bits 144-151
Bit definitions:					
		1... ....		FACL_TPEI	"X'80'" Bit 144
		.1.. ....		FACL_IRBM	"X'40'" Bit 145
		..1. ....		FACL_MSAE8	"X'20'" Bit 146
		.... 1...		FACL_VEF2	"X'08'" Bit 148 z15 Vector Enhancements Facility 2 Even if this bit is on, do not use the VEF2 unless bit CVTVEF is on.
		.... .1..		FACL_MPSK	"X'04'" Bit 149
		.... ..1.		FACL_ENHANCEDSORT	"X'02'" Bit 150 z15 Enhanced Sort Facility
		.... ...1		FACL_DFLTCC	"X'01'" Bit 151 - z15 The DEFLATE-conversion facility is installed in the zArch mode
27	(1B)	BITSTRING	1	FACLBYTE19	Bits 152-159
Bit definitions:					
		1... ....		FACL_VBCD1	"X'80'" Bit 152 z15 Vector Binary-coded decimal (BCD) Enhancements Facility 1. Even if this bit is on, do not use the VBCD1 unless bit CVTVEF is on.
		...1 ....		FACL_MSAE9	"X'10'" Bit 155
28	(1C)	BITSTRING	1	FACLBYTE20	Bits 160-167
Bit definitions:					

Table 641. Structure FACL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		FACLNNPAF	"X'04'" Bit 165. Even if this bit is on, do not use the NNPAF unless bit CVTNNPAF is on.
29	(1D)	BITSTRING	1	FACLBYTE21	Bits 168-175
Bit definitions:					
		..1. ....		FACLINTF	"X'20'" Bit 170
		..1. ....		FACLRSTEF	"X'20'" Bit 170
30	(1E)	BITSTRING	1	FACLBYTE22	Bits 176-183
31	(1F)	BITSTRING	1	FACLBYTE23	Bits 184-191
32	(20)	BITSTRING	1	FACLBYTE24	Bits 192-199
Bit definitions:					
		.1.. ....		FACL_BEARENHANCEMENT	"X'40'" Bit 193 z16 BEAR Enhancement Facility
		.... 1...		FACLPAIF	"X'08'" Bit 196
		.... .1..		FACLPAIE1	"X'04'" Bit 197
33	(21)	BITSTRING	1	FACLBYTE25	Bits 200-207
Bit definitions:					
		1... ....		FACL_WIF	"X'80'" Bit 200
		.1.. ....		FACLCONCURRENTFUNCTIONS	"X'40'" Bit 201 z17 Concurrent Functions Facility
34	(22)	BITSTRING	1	FACLBYTE26	Bits 208-215
35	(23)	BITSTRING	1	FACLBYTE27	Bits 216-223
36	(24)	BITSTRING	1	FACLBYTE28	Bits 224-231
37	(25)	BITSTRING	1	FACLBYTE29	Bits 232-239
38	(26)	BITSTRING	1	FACLBYTE30	Bits 240-247
39	(27)	BITSTRING	1	FACLBYTE31	Bits 248-255
40	(28)	CHARACTER	96		Bytes 32-127
40	(28)	X'C1C3D3'	0	FACLID_CHARS	"C'FACL'"
40	(28)	X'88'	0	FACL_LEN	"*-FACL"

Table 642. Cross Reference for IHAFACL

Name	Offset	Hex Tag
FACL	0	
FACL_BEARENHANCEMENT	20	40
FACL_CLOSEFACILITY	18	8
FACL_CTEND	E	1
FACL_DELAYFACILITY	18	80
FACL_DFLTCC	1A	1
FACL_DFPPACKEDCONVERSION	12	80
FACL_ENHANCEDSORT	1A	2
FACL_GSF	18	4
FACL_IFSUPPRESSIONFACILITY	18	20

Table 642. Cross Reference for IHAFACL (continued)

Name	Offset	Hex Tag
FACL_INSTEXECPROTFACILITY	18	20
FACL_IRBM	1A	40
FACL_LEN	28	88
FACL_LOADSTOREONCOND2	E	4
FACL_LOADZERORIGHTMOSTBYTE	E	4
FACL_MPSK	1A	4
FACL_MSAE8	1A	20
FACL_MSAE9	1B	10
FACL_MULTIPLEPOCH	19	10
FACL_M1	12	2
FACL_PLOE	12	1
FACL_RTI_FCMODFACILITY	18	2
FACL_SCALEDPUTIMER	19	1
FACL_SHAREDTLB	19	80
FACL_SIDEFFECTFACILITY	18	10
FACL_STORECPUCTRMULTIPLE	19	2
FACL_STPTODCS	F	80
FACL_TODCLOCKEPOCHFACILITY	19	10
FACL_TPEI	1A	80
FACL_VBCD	18	2
FACL_VBCD1	1B	80
FACL_VECTOREXTENSIONFACILITY	18	40
FACL_VEF1	18	1
FACL_VEF2	1A	8
FACL_WIF	21	80
FACLACCESSEXCEPTIONFSI	11	10
FACLAEN	10	1
FACLAIS	11	80
FACLAISI	10	2
FACLAPFT	9	1
FACLASNANDLXREUSEINSTALLED	8	2
FACLBIT49	E	40
FACLBYTES0T015	8	
FACLBYTES16T031	18	
FACLBYTE0	8	
FACLBYTE1	9	
FACLBYTE10	12	
FACLBYTE11	13	
FACLBYTE12	14	

Table 642. Cross Reference for IHAFACL (continued)

Name	Offset	Hex Tag
FACLBYTE13	15	
FACLBYTE14	16	
FACLBYTE15	17	
FACLBYTE16	18	
FACLBYTE17	19	
FACLBYTE18	1A	
FACLBYTE19	1B	
FACLBYTE2	A	
FACLBYTE20	1C	
FACLBYTE21	1D	
FACLBYTE22	1E	
FACLBYTE23	1F	
FACLBYTE24	20	
FACLBYTE25	21	
FACLBYTE26	22	
FACLBYTE27	23	
FACLBYTE28	24	
FACLBYTE29	25	
FACLBYTE3	B	
FACLBYTE30	26	
FACLBYTE31	27	
FACLBYTE4	C	
FACLBYTE5	D	
FACLBYTE6	E	
FACLBYTE7	F	
FACLBYTE8	10	
FACLBYTE9	11	
FACLCMPEF	D	1
FACLCONCURRENTFUNCTIONS	21	40
FACLCONDSSKEINSTALLED	9	20
FACLCONFIGURATIONTOPOLOGY	9	10
FACLCONSTRAINEDTX	E	20
FACLCPU MEASUREMENTCOUNTER	10	10
FACLCPU MEASUREMENTSAMPLING	10	8
FACLCQCIF	9	8
FACLCRYPTOAPQAI	10	40
FACLCRYPTOASSIST	A	40
FACLCSSF	C	80
FACLCSSF2	C	40

Table 642. Cross Reference for IHAFACL (continued)

Name	Offset	Hex Tag
FACLDATA	8	
FACLDATALEN	6	
FACLDFFPF	D	20
FACLDFFPFHP	D	10
FACLDFFPZONECONVERSION	E	80
FACLDISTINCTOPERANDS	D	4
FACLECTF	B	1
FACLEDATFEAT	9	80
FACLEDAT2	11	2
FACLEEC	E	2
FACLENHANCEDMONITOR	C	8
FACLESAME	8	20
FACLESAMEINSTALLED	8	40
FACLESAMEN3	8	80
FACLET2F	A	80
FACLET2FE	B	80
FACLET3F	A	2
FACLET3FE	B	2
FACLEXECUTEEXTF	C	10
FACLEXECUTIONHINT	E	40
FACLEXTENDEDIMMEDIATE	A	4
FACLFPEXTENSION	C	4
FACLFPSEF	D	40
FACLGGENERALINSTEEXTENSION	C	20
FACLHEADER	0	
FACLHFPMAS	A	8
FACLHFPUNNORMEXTENSION	A	1
FACLHIGHWORD	D	4
FACLIAF2	E	8
FACLID	0	
FACLID_CHARS	28	C1C3D3
FACLIDTECLEARINGCOMBINEDREGION	8	4
FACLIDTECLEARINGCOMBINEDSEGMENT	8	8
FACLIDTEINSTALLED	8	10
FACLINTF	1D	20
FACLIPTERANGE	9	4
FACLOADANDTRAP	E	40
FACLOADSTOREONCONDITION	D	4
FACLOCALTLBCLEARING	E	10

Table 642. Cross Reference for IHAFACL (continued)

Name	Offset	Hex Tag
FACLLONGDISPLACEMENT	A	20
FACLLONGDISPLACEMENTHP	A	10
FACLMESSEGESECURITYASSIST	A	40
FACLMIE2	F	20
FACLMIE3	F	4
FACLMIE4	12	8
FACLMISCINTEXT	E	40
FACLMSAE5	F	40
FACLMSA3	11	8
FACLMSA4	11	4
FACLNNPAF	1C	4
FACLNONQKEYSETTING	9	2
FACLOBSOLETECPUMEASUREMENT	C	1
FACLORDERPRESERVINGCOMP	C	2
FACLPAIE1	20	4
FACLPAIF	20	8
FACLPARSE	B	20
FACLPFPO	D	8
FACLPOPULATIONCOUNT	D	4
FACLRI	10	80
FACLRSTEF	1D	20
FACLSA	F	10
FACLSCLP	10	4
FACLSENERUNNINGSTATUS	9	40
FACLSETPROGRAMPARM	D	80
FACLSTCKF	B	40
FACLSTFLE	8	1
FACLSTOREHYPERVISORINFO	11	20
FACLTCSF	B	8
FACLTRANSACTIONALEXECUTION	11	40
FACLTSI	F	8
FACLZARCH	8	20
FACLZARCHINSTALLED	8	40
FACLZARCHN3	8	80
FACLZ1	18	40

# IHAFETWK information

## IHAFETWK heading information

<b>Common name:</b>	Fetch work area definition
<b>Macro ID:</b>	IHAFETWK
<b>DSECT name:</b>	FTWKAREA
<b>Owning component:</b>	LOADER (SCLDR)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: Variable Key: 0
<b>Size:</b>	Variable
<b>Created by:</b>	User
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	NONE
<b>Function:</b>	IHAFETWK (Fetch work area) has two sections: FETCHWK is addressed only by IEWFETCH (the fetch program) WKCNTNSV is addressed by IEWFETCH and by the calling program (contents manager, overlay supervisor, or other) Storage for the fetch work area is always gotten by the calling program, and must be fixed in storage below the 2G line since IEWFETCH keeps format 1 CCWs and IDALs in this area. The number of bytes of storage which must be obtained is the length of 'FTWKAREA'.

## IHAFETWK mapping

Table 643. Structure FTWKAREA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1540	FTWKAREA	
0	(0)	CHARACTER	1424	FETCHWA	
0	(0)	CHARACTER	768	FTCLEAR	AREA CLEARED TO HEX ZEROS
CONTENTS SUPERVISOR'S WORK AREA					
1424	(590)	CHARACTER	116	WKCNTNSV	
1424	(590)	ADDRESS	4	WKDEBPTR	X'590' ADDRESS OF THE DEB IF VERIFIED BY CONTENTS MANAGER, IF WKDEBOK IS ZERO, THIS FIELD IS IGNORED
1428	(594)	ADDRESS	4	WKCDADDR	X'594' ADDRESS OF CDE
1432	(598)	ADDRESS	4	WKIOADDR	X'598' ADDRESS OF AREA GETMAINED. FETCH WILL DO I/O IN THIS AREA
1436	(59C)	BITSTRING	1	WKFLAG	X'59C' TASKLIB SEARCH IND
1437	(59D)	BITSTRING	1	WKFLG1	X'59D'
		1... ....		WKAUTH	MODULE IN AUTHORIZED LIBRARY
		.1.. ....		WKSYSREQ	THIS IS A SYSTEM REQUEST
		..1. ....		WKSYSDCB	SYSTEMDCB REQUEST
		...1 ....		WKIOADDR_IS_64	64-bit WKIOADDR
		.... 1...		WK_DIRECTEDFETCH	Directed Fetch



Table 643. Structure FTWKAREA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		WK_TRULY_CSV	Caller is CSV
		.... ..11		*	
1438	(59E)	BITSTRING	1	WKFLG2	X'59E' FLAG BYTE 3
		1... ....		WKDEBOK	THE DEB HAS BEEN VERIFIED BY THE CALLING PROGRAM
		.111 ....		*	
		.... 1...		WKUSRLIB	DCB IS FOR A USER LIBRARY
		.... .1..		WKJOBLIB	DCB IS FOR THE JOB LIBRARY
		.... ..1.		WKSVCCLIB	DCB IS FOR THE SVC LIBRARY
		.... ...1		WKLNLKLIB	DCB IS FOR THE LINK LIBRARY
1439	(59F)	BITSTRING	1	WKFLG3	X'59F'
1440	(5A0)	CHARACTER	16	*	X'5A0'
1440	(5A0)	SIGNED	4	WKREGIS(4)	X'5A0' USED TO SAVE REGS ACROSS BLDL
1440	(5A0)	ADDRESS	8	WKIOADDR64	X'5A0' 8-byte address
1440	(5A0)	CHARACTER	8	WKIOADDR64C	X'5A0' 8-byte address
1456	(5B0)	ADDRESS	4	WKTCBSE	X'5B0' ADDRESS OF TCB CONTAINING LAST DCB
1460	(5B4)	ADDRESS	4	WKDCBSE	X'5B4' ADDRESS OF LAST DCB SEARCH ARGUMENT
BLDL ENTRY					
1464	(5B8)	CHARACTER	76	WKBLDE	X'5B8'
1464	(5B8)	SIGNED	4	WKPREFIX	X'5B8' BLDL PREFIX
1468	(5BC)	CHARACTER	72	WKPDSE	X'5BC' BLDL DIR ENTRY
NOTE THAT THE FOLLOWING AREA IS ALSO MAPPED BY IHAPDS (PDS DIRECTORY ENTRY) IN IEWFETCH (THE FETCH PROGRAM), BUT THAT THERE ARE MINOR DIFFERENCES IN BLDL AND PDS DEFINITIONS					
1468	(5BC)	CHARACTER	8	WKNAME	X'5BC' MODULE NAME
1476	(5C4)	CHARACTER	4	WKTRK	X'5C4' TRACK AND RECORD NUMBER
1476	(5C4)	UNSIGNED	2	WKTT	X'5C4' /TRACK NUMBER
1478	(5C6)	UNSIGNED	1	WKR	X'5C6' RECORD NUMBER
1479	(5C7)	UNSIGNED	1	WKK	NO. OF CONCATENATED DATA SETS
1480	(5C8)	BITSTRING	1	WKZBYTE	X'5C8' 'Z' BYTE
1481	(5C9)	BITSTRING	1	WKCBYTE	X'5C9' 'C' BYTE
1482	(5CA)	CHARACTER	8	WKTTESD	X'5CA'
1490	(5D2)	BITSTRING	2	WKATTR	X'5D2' ATTRIBUTE FLAGS
1492	(5D4)	CHARACTER	5	WKLNTH	
1492	(5D4)	UNSIGNED	3	WKLNTHM	X'5D4' LENG OF MODULE
1495	(5D7)	SIGNED	2	WKLNTHF	X'5D7' LENGTH OF FIRST TEXT RECORD
1497	(5D9)	ADDRESS	3	WKENTPT	X'5D9' ENTRY POINT ADDRESS
1500	(5DC)	ADDRESS	3	WKTXTRG	X'5DC' TEXT ORIGIN ADDRESS
1503	(5DF)	CHARACTER	37	WKAPFSSI	X'5DF' APF AND SSI FIELDS
1540	(604)	CHARACTER	0	WKEND	X'604' END OF FETCH WORK AREA

Table 644. Structure FTBELOW16M

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	104	FTBELOW16M	Below 16M Fetch area
0	(0)	CHARACTER	40	FTIOB	EXCP IOB - Must be first
0	(0)	CHARACTER	32	*	
32	(20)	CHARACTER	8	FTIOBSEEK	
32	(20)	CHARACTER	3	*	
35	(23)	CHARACTER	5	FTIOBCCHHR	
40	(28)	CHARACTER	4	FTB16ID	Eye catcher
44	(2C)	ADDRESS	4	FTB16BACK	Pointer to fetch workarea
48	(30)	CHARACTER	48	FTIOBE	EXCP IOBE
96	(60)	CHARACTER	4	FTVIOECB	EXCP ECB
96	(60)	CHARACTER	1	FTVIOECBYT	
	1... ....			*	
	.1... ....			FTVIOECPOST	ECB POSTED COMPLETE
	..11 1111			*	
100	(64)	ADDRESS	4	FTDCBDEB	Pseudo DCB DEB pointer
104	(68)	CHARACTER	0	FTVIODEB	EXCP DEB copy

Table 645. Structure WKALIAS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1503	(5DF)	STRUCTURE	11	WKALIAS	X'5DF'
1503	(5DF)	CHARACTER	3	WKENTBK	X'5DF'
1506	(5E2)	CHARACTER	8	WKNAMBK	X'5E2'

Table 646. Structure WKSCATER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1503	(5DF)	STRUCTURE	37	WKSCATER	X'5DF'
1503	(5DF)	CHARACTER	8	WKSCATR	X'5DF'
DEFINE ENTRIES FOR SCATTER, ALIAS					
1511	(5E7)	ADDRESS	3	WKENTSC	X'5E7'
1514	(5EA)	CHARACTER	8	WKNAMSC	X'5EA'
1522	(5F2)	CHARACTER	6	*	
1528	(5F8)	ADDRESS	4	WKMAINEP	X'5F8'
1532	(5FC)	CHARACTER	8	WKMAINAM	X'5FC'

Table 647. Constants for IHAFETWK

Len	Type	Value	Name	Description
4	CHARACTER	FT16	FTB16IDC	Eye catcher constant
RETURN CODES FROM IEWFETCH, PASSED TO CALLER IN REG 15				
1	DECIMAL	0	RCNORMAL	X'00' - NORMAL RETURN
1	DECIMAL	10	RCLRAERR	X'0A' - LRA FAILURE
1	DECIMAL	11	RCPGMCK	X'0B' - PROGRAM CHECK
1	DECIMAL	12	RCNOSTOR	X'0C' - NO STORAGE

Table 647. Constants for IHAFETWK (continued)

Len	Type	Value	Name	Description
1	DECIMAL	13	RCBADREC	X'0D' - BAD RECORD READ
1	DECIMAL	14	RCBADADR	X'0E' - INVALID ADDRESS
1	DECIMAL	15	RCIOERR	X'0F' - PERMANENT I/O ERROR
REASON CODES FOR LRA FAILURES				
EXPLANATION OF RCLRAERR:				
1	DECIMAL	1	RCLRA01	X'01'
1	DECIMAL	2	RCLRA02	X'02'
1	DECIMAL	3	RCLRA03	X'03'
1	DECIMAL	4	RCLRA04	X'04'
1	DECIMAL	5	RCLRA05	X'05'
1	DECIMAL	6	RCLRA06	X'06'
1	DECIMAL	7	RCLRA07	X'07'
1	DECIMAL	8	RCLRA08	X'08'
1	DECIMAL	9	RCLRA09	X'09'
1	DECIMAL	10	RCLRA10	X'0A'
1	DECIMAL	11	RCLRA11	X'0B'
1	DECIMAL	12	RCLRA12	X'0C'
1	DECIMAL	13	RCLRA13	X'0D'
1	DECIMAL	14	RCLRA14	X'0E'
1	DECIMAL	15	RCLRA15	X'0F'
1	DECIMAL	16	RCLRA16	X'10'
1	DECIMAL	17	RCLRA17	X'11'
1	DECIMAL	18	RCLRA18	X'12'
1	DECIMAL	19	RCLRA19	X'13'
1	DECIMAL	20	RCLRA20	X'14'
1	DECIMAL	21	RCLRA21	X'15'
REASON CODES FROM IEWFETCH, PASSED TO CALLER IN REG 0				
EXPLANATION OF RCNOSTOR:				
1	DECIMAL	4	RSNDATD	X'04' - NO STORAGE FOR DATD
1	DECIMAL	8	RSNDEB	X'08' - NO STORAGE FOR DEB
1	DECIMAL	12	RSNIOSB	X'0C' - NO STORAGE FOR IOSB
1	DECIMAL	16	RSNEXTL	X'10' - NO STORAGE FOR EXTLIST
1	DECIMAL	20	RSNMOD	X'14' - NO STORAGE FOR MODULE
1	DECIMAL	24	RSNFIX	X'18' - UNABLE TO FIX STORAGE
EXPLANATION OF RCBADADR:				
1	DECIMAL	32	RSNTTR	X'20' - ERROR CONVERTING TTR
1	DECIMAL	36	RSNBOM	X'24' - BLOCK OUTSIDE MODULE
1	DECIMAL	40	RSNADL	X'28' - ADCON LOCATION INVALID
1	DECIMAL	44	RSNV2G	X'2C' - VIO with area above 2G
EXPLANATION OF RCIOERR::				

Table 647. Constants for IHAFETWK (continued)

Len	Type	Value	Name	Description
1	DECIMAL	64	RSNRDS	X'40' - I/O ERROR ON A RDS
1	DECIMAL	68	RSNVDS	X'44' - ERROR ON A VIRTUAL DS
1	DECIMAL	72	RSNEXTV	X'48' - SEEK ADDR OUTSIDE EXTENT
1	DECIMAL	76	RSNPCI	X'4C' - POSSIBLE PCI LOGIC ERROR
1	DECIMAL	80	RSNPDSE	X'50' - DATA SET IS A PDSE
The CSVFETVB/CSVFETV2 functions. Only one enters at FETV2				
4	DECIMAL	1	KCSVFETVB_DIGESTINIT	
4	DECIMAL	2	KCSVFETVB_KIMD	
4	DECIMAL	3	KCSVFETVB_KLMD	
4	DECIMAL	4	KCSVFETV2_READSIGINFO	Enters at CSVFETV2
4	DECIMAL	5	KCSVFETVB_CHECKDERECORDS	

Table 648. Cross Reference for IHAFETWK

Name	Offset	Hex Tag
FETCHWA	0	
FTBELOW16M	0	
FTB16BACK	2C	
FTB16ID	28	
FTCLEAR	0	
FTDCBDEB	64	
FTIOB	0	
FTIOBCCHHR	23	
FTIOBE	30	
FTIOBSEEK	20	
FTVIODEB	68	
FTVIOECB	60	
FTVIOECBYT	60	
FTVIOECPOST	60	40
FTWKAREA	0	
WK_DIRECTEDFETCH	59D	08
WK_TRULY_CSV	59D	04
WKALIAS	5DF	
WKAPFSSI	5DF	
WKATTR	5D2	
WKAUTH	59D	80
WKBLDE	5B8	
WKCBYTE	5C9	
WKCDADDR	594	
WKCNTNSV	590	
WKDCBSE	5B4	

Table 648. Cross Reference for IHAFETWK (continued)

Name	Offset	Hex Tag
WKDEBOK	59E	80
WKDEBPTR	590	
WKEND	604	
WKENTBK	5DF	
WKENTPT	5D9	
WKENTSC	5E7	
WKFLAG	59C	
WKFLG1	59D	
WKFLG2	59E	
WKFLG3	59F	
WKIOADDR	598	
WKIOADDR_IS_64	59D	10
WKIOADDR64	5A0	
WKIOADDR64C	5A0	
WKJOBLIB	59E	04
WKK	5C7	
WKLNLKLIB	59E	01
WKLNTH	5D4	
WKLNTHF	5D7	
WKLNTHM	5D4	
WKMAINAM	5FC	
WKMAINEP	5F8	
WKNAMBK	5E2	
WKNAME	5BC	
WKNAMSC	5EA	
WKPDSDE	5BC	
WKPREFX	5B8	
WKR	5C6	
WKREGIS	5A0	
WKSCATER	5DF	
WKSCATR	5DF	
WKSVCCLIB	59E	02
WKSYSDCB	59D	20
WKSYSREQ	59D	40
WKTCBSE	5B0	
WKT	5C4	
WKTTESD	5CA	
WKTTRK	5C4	
WKTXTRG	5DC	

Table 648. Cross Reference for IHAFETWK (continued)

Name	Offset	Hex Tag
WKUSRLIB	59E	08
WKZBYTE	5C8	

## IHAFPC information

### IHAFPC programming interface information

IHAFPC is a programming interface.

### IHAFPC heading information

<b>Common name:</b>	FLOATING POINT CONTROL REGISTER
<b>Macro ID:</b>	IHAFPC
<b>DSECT name:</b>	FPC
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	FPC -- X'0004' bytes
<b>Created by:</b>	USER
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps the architected Floating Point Control register

### IHAFPC mapping

Table 649. Structure FPC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FPC	FLOATING POINT CONTROL REG
0	(0)	CHARACTER	1	FPCMASK	MASK BITS
		1... ..		FPCMINVO	"X'80'" INVALID OPERATION MASK
		.1.. ..		FPCMDIVZ	"X'40'" DIVISION BY ZERO MASK
		..1. ....		FPCMOVFL	"X'20'" OVERFLOW MASK
		...1 ....		FPCMUNFL	"X'10'" UNDERFLOW MASK
		.... 1...		FPCMINEX	"X'08'" INEXACT MASK
1	(1)	CHARACTER	1	FPCFLAG	FLAG BITS
		1... ..		FPCFINVO	"X'80'" INVALID OPERATION FLAG
		.1.. ..		FPCFDIVZ	"X'40'" DIVISION BY ZERO FLAG
		..1. ....		FPCFOVFL	"X'20'" OVERFLOW FLAG
		...1 ....		FPCFUNFL	"X'10'" UNDERFLOW FLAG
		.... 1...		FPCFINEX	"X'08'" INEXACT FLAG
2	(2)	CHARACTER	1	FPCDXC	DATA EXCEPTION CODE

Table 649. Structure FPC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ..		FPCDINVO	"X'80'" INVALID OPERATION
		.1... ..		FPCDDIVZ	"X'40'" DIVISION BY ZERO
		..1. ....		FPCDOVFL	"X'20'" OVERFLOW
		...1 ....		FPCDUNFL	"X'10'" UNDERFLOW
		.... 1...		FPCDINEX	"X'08'" INEXACT
		.... .1..		FPCDINCR	"X'04'" INCREMENTED
		.... ..11		FPCDR	"X'03'" RESERVED
3	(3)	CHARACTER	1	FPCBYTE3	3 * BIT(6), RESERVED
		.... ..11		FPCRND	"X'03'" ROUNDING MODE
4	(4)	X'4'	0	FPC_LEN	"*-FPC"

Table 650. Cross Reference for IHAFPC

Name	Offset	Hex	Tag
FPC	0		
FPC_LEN	4		4
FPCBYTE3	3		
FPCDDIVZ	2		40
FPCDINCR	2		4
FPCDINEX	2		8
FPCDINVO	2		80
FPCDOVFL	2		20
FPCDR	2		3
FPCDUNFL	2		10
FPCDXC	2		
FPCFDIVZ	1		40
FPCFINEX	1		8
FPCFINVO	1		80
FPCFLAG	1		
FPCFOVFL	1		20
FPCFUNFL	1		10
FPCMASK	0		
FPCMDIVZ	0		40
FPCMINEX	0		8
FPCMINVO	0		80
FPCMOVFL	0		20
FPCMUNFL	0		10
FPCRND	3		3

# IHAFPRET information

## IHAFPRET programming interface information

IHAFPRET is a programming interface.

## IHAFPRET heading information

<b>Common name:</b>	IEAFP Return Information
<b>Macro ID:</b>	IHAFPRET
<b>DSECT name:</b>	NONE
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None required
<b>Function:</b>	Equates for IEAFP return and reason codes

## IHAFPRET mapping

Table 651. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IHAFPRET_1; Return Code Information It is guaranteed that no reason code will be reused (i.e., the same reason code will not be used for more than one return code). Also note carefully that bits 0-15 of the reason code may contain component-diagnostic data and must not be assumed to be 0.					
0	(0)	BITSTRING	0	IEAFPRSNCODEMASK	"X'0000FFFF'" Use this mask to isolate the non component-diagnostic portion of the reason code.
IEAFP Return and Reason Code definitions					
		.... ....		IEAFPRC_OK	"X'00000000'" Meaning: IEAFP request successful. Action: None required.
		.... 1...		IEAFPRC_INVPARM	"X'00000008'" Meaning: IEAFP request specifies parmeters that are not valid. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEAFPRSNBADFUNCTION	"X'00000801'" Meaning: Incorrect value passed to target routine. Action: Check for possible storage overlay.
		.... 11..		IEAFPRC_ENV	"X'0000000C'" Meaning: Environmental error Action: Refer to the action provided with the specific reason code.



Table 651. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IEAFPRSNFROMASYNCHEXIT	"X'00000C01" Meaning: IEAFP was issued from an asynchronous exit routine. Action: Avoid issuing IEAFP from an asynchronous exit routine.
0	(0)	BITSTRING	0	IEAFPRSNFROMNONPREEMPTIBLESRB	"X'00000C02" Meaning: IEAFP START was issued from an SRB that was a non-preemptible SRB. Action: Avoid issuing IEAFP from a non-preemptible SRB.
0	(0)	BITSTRING	0	IEAFPRSNFROMNOTBITCB	"X'00000C03" Meaning: IEAFP START was issued from a task that was not the jobstep program task nor a subtask of that task. Action: When using IEAFP START from a task, do so only from the jobstep program task or a subtask of that task.
0	(0)	BITSTRING	0	IEAFPRSNLOCKED	"X'00000C04" Meaning: IEAFP START was issued when holding a lock other than the LOCAL lock. Action: Avoid using IEAFP START when holding a lock other than the LOCAL lock.
0	(0)	BITSTRING	0	IEAFPRSNNOSTORAGE	"X'00000C05" Meaning: Necessary system storage could not be obtained. For a task mode request, it is LSQA storage. For an SRB mode request, it is ESQA storage. Action: If issued in task mode, use IEAFP START at an earlier time in the jobstep. If issued in SRB mode, arrange for some current user of ESQA storage to release it or run this after a re-IPL after ensuring additional ESQA storage availability for that IPL.
0	(0)	BITSTRING	0	IEAFPRSNSUPERBIT	"X'00000C06" Meaning: IEAFP START was issued from a work unit with at least one bit on in the PSASUPER word. A DIE is one such kind of work unit. Action: Avoid issuing IEAFP from a DIE or any other work unit running with PSASUPER on.

Table 652. Cross Reference for IHAFPRET

Name	Offset	Hex Tag
IEAFPRC_ENV	0	C
IEAFPRC_INVARM	0	8
IEAFPRC_OK	0	0
IEAFPRSNBADFUNCTION	0	801
IEAFPRSNCODEMASK	0	FFFF
IEAFPRSNFROMASYNCHEXIT	0	C01
IEAFPRSNFROMNONPREEMPTIBLESRB	0	C02
IEAFPRSNFROMNOTBITCB	0	C03
IEAFPRSNLOCKED	0	C04
IEAFPRSNNOSTORAGE	0	C05
IEAFPRSNSUPERBIT	0	C06

## IHAFRRSO information

### IHAFRRSO heading information

<b>Common name:</b>	OLD IHAFRRS
<b>Macro ID:</b>	IHAFRRSO
<b>DSECT name:</b>	FRRSO, FRRSOXSTK, FRRSOENTR, FRRSOXENT
<b>Owning component:</b>	RECOVERY TERMINATION MANAGER (SCRTM)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 239 Key: 0
<b>Size:</b>	856 BYTES OR LESS
<b>Created by:</b>	IEAVNIP0 OR IEFVCPU
<b>Pointed to by:</b>	PSA DATA AREA FIELDS - PSACSTK (CURRENT FRR STACK) PSANSTK (NORMAL FRR STACK) PSASSTK (SVC-I/O-DISPATCHER FRR STACK) PSASSAV (CURRENT FRR STACK SAVED BY SVC-I/O-DISPATCHER) PSAMSTK (MACHINE CHECK FLIH FRR STACK) PSAMSAV (CURRENT FRR STACK AT TIME OF MACHINE CHECK) PSAPSTAK (PROGRAM CHECK FLIH FRR STACK) PSAPSAV (CURRENT FRR STACK AT TIME OF PROGRAM CHECK) PSAESTK1 (EXTERNAL FLIH1 FRR STACK) PSAESAV1 (CURRENT FRR STACK AT TIME OF EXTERNAL INTERRUPT) PSAESTK2 (EXTERNAL FLIH2 FRR STACK) PSAESAV2 (CURRENT FRR STACK AT TIME OF FIRST RECURSIVE EXTERNAL INTERRUPT) PSAESTK3 (EXTERNAL FLIH3 FRR STACK) PSAESAV3 (CURRENT FRR STACK AT TIME OF SECOND RECURSIVE EXTERNAL INTERRUPT) PSARSTK (RESTART FLIH FRR STACK) PSARSAV (CURRENT FRR STACK AT TIME OF RESTART INTERRUPT) PSATSTK (RECOVERY TERMINATION MANAGER FRR STACK) PSATSAV (ERROR STACK SAVED BY RTM PROCESSING) PSAASTK (ALTERNATE CPU RECOVERY FRR STACK) PSAASAV (FRR STACK SAVED BY ACR PROCESSING)
<b>Serialization:</b>	AT LEAST ONE OF THE FOLLOWING - DISABLEMENT, SRB MODE, ANY LOCK HELD, OR AN EUT=YES FRR IS ESTABLISHED AND HAS NOT BEEN DELETED
<b>Function:</b>	MAPPING OF FRR STACK CONTENTS, USED WITH THE SETFRR MACRO TO DEFINE FRRSO

### IHAFRRSO mapping

Table 653. Structure FRRSO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	600	FRRSO	
0	(0)	CHARACTER	88	FRRSOND	NON-DYNAMIC PART OF THE FRR STACK
0	(0)	CHARACTER	16	FRRSOHEAD	THE HEADER OF THE FRR STACK

Table 653. Structure FRRSO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	ADDRESS	4	FRRSOEMP	ADDRESS WHICH INDICATES AN EMPTY STACK
4	(4)	ADDRESS	4	FRRSOLAST	ADDRESS OF LAST ENTRY IN STACK
8	(8)	SIGNED	4	FRRSOELEN	LENGTH OF EACH ENTRY IN THE STACK
12	(C)	ADDRESS	4	FRRSOCURR	ADDRESS OF CURRENT FRR ENTRY IN THE STACK
16	(10)	CHARACTER	24	FRRSORSA	SETFRR REG 14-3 SAVE AREA
40	(28)	CHARACTER	4	FRRSORTMW	RECURSION CONTROL DATA REMOVED FROM THE RT1W
44	(2C)	UNSIGNED	2	FRRSOENTL	RESERVED FOR FRRSOCOPY MACRO TO SAVE LENGTH OF ENTRIES ACTUALLY COPIED
46	(2E)	UNSIGNED	2	FRRSOEXTL	RESERVED FOR FRRSOCOPY MACRO TO SAVE LENGTH OF EXTENSIONS ACTUALLY COPIED
48	(30)	CHARACTER	8	*	RESERVED
56	(38)	ADDRESS	4	FRRSORTMA	ADDRESS OF RTM1 WORK AREA
60	(3C)	ADDRESS	4	FRRSOXSTA	ADDRESS OF THE EXTENSIONS TO THE FRR ENTRIES (ACTUAL SIZE IS 16 TIMES THE MAXIMUM NUMBER OF ENTRIES)
64	(40)	CHARACTER	24	FRRSOASA	SETFRR ACCESS REGISTER 14-3 SAVE AREA
88	(58)	CHARACTER	512	FRRSOENTS	THE FRR ENTRIES IN THE STACK

Table 654. Structure FRRSOENTR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	32	FRRSOENTR	THE MAPPING OF A FRR ENTRY
0	(0)	ADDRESS	4	FRRSOFRAA	THE ADDRESS OF THE FRR
0	(0)	CHARACTER	3	*	
3	(3)	CHARACTER	1	FRRSOFRA1	LOW ORDER BYTE
	1111 111.			*	
	.... ..1			FRRSOXFLG	FLAG INDICATING FRRSOFLGS INITIALIZED WHEN SETFRR WAS ISSUED
4	(4)	CHARACTER	4	FRRSOFLGS	FLAGS USED BY RTM DURING FRR PROCESSING
4	(4)	CHARACTER	1	FRRSOFLG1	RECURSION USED BY RTM
	1... ....			FRRSORCUR	RECURSION FLAG USED WHEN GIVING CONTROL TO FRR AND WHEN RECEIVING CONTROL BACK FROM FRR
	.1.. ....			FRRSONEST	FLAG INDICATING A NESTED FRR ENTRY
	..1. ....			FRRSONLCL	FLAG INDICATING THAT NESTED FRR IS A MODE=LOCAL FRR
	...1 ....			FRRSONGLB	FLAG INDICATING THAT NESTED FRR IS A MODE=GLOBAL FRR
	.... 1...			FRRSONRTY	FRR RETRY INDICATOR. IF ON, FRR CANNOT RETRY.
5	(5)	CHARACTER	1	FRRSOFLG2	RESERVED
6	(6)	CHARACTER	1	FRRSOFLG3	RESULT OF IAC INSTRUCTION FROM TIME OF SETFRR
	1111 11..			*	
	.... ..11			FRRSOASC	ASC FLAGS
7	(7)	CHARACTER	1	FRRSOFLG4	FLAGS TO INDICATE OPTIONS CHOSEN WHEN THE SETFRR WAS ISSUED
	1... ....			FRRSOEUT	ENABLED UNLOCKED TASK FRR (EUT=YES ON SETFRR)

Table 654. Structure FRRSOENTR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		FRRSONCNL	CANCEL=NO FRR, PROTECTED FROM CANCELS, DETACHES
		..11 ....		*	RESERVED
		.... 1...		FRRSOFULL	MODE=FULLXM WAS SPEC ON THE SETFRR
		.... .1..		FRRSOPRIM	MODE=PRIMARY WAS SPEC ON THE SETFRR
		.... ..1.		FRRSOLCL	MODE=LOCAL WAS SPEC ON THE SETFRR
		.... ...1		FRRSGLB	MODE=GLOBAL WAS SPEC ON THE SETFRR
8	(8)	CHARACTER	24	FRRSOPARM	PARAMETER AREA PASSED TO FRR

Table 655. Structure FRRSOXENT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	FRRSOXENT	THE MAPPING OF AN FRR ENTRY EXTENSION
0	(0)	CHARACTER	8	FRRSOXM	CROSS MEMORY INFO WHEN SETFRR WAS ISSUED
0	(0)	CHARACTER	4	FRRSOCR3	CONTROL REGISTER 3 WHEN SETFRR WAS ISSUED
0	(0)	CHARACTER	2	FRRSOKM	KEY MASK
2	(2)	CHARACTER	2	FRRSOSAS	SASID
4	(4)	CHARACTER	4	FRRSOCR4	CONTROL REGISTER 4 WHEN SETFRR WAS ISSUED
4	(4)	CHARACTER	2	FRRSOAX	AUTHORIZATION INDEX
6	(6)	CHARACTER	2	FRRSOPAS	PASID
8	(8)	ADDRESS	4	FRROEAX	EAX VALUE AT SETFRR
12	(C)	ADDRESS	4	FRROLS	LINKAGE STACK AT SETFRR

Table 656. Constants for IHAFRRSO

Len	Type	Value	Name	Description
4	DECIMAL	32	FRRSOESZE	LENGTH OF EACH FRR ENTRY
4	DECIMAL	16	FRRSOEXSZ	LENGTH OF EACH FRR EXTENSION
4	DECIMAL	16	FRRSONENT	NUMBER OF FRR ENTRIES IN THE STACK
4	DECIMAL	856	FRRSOTLEN	TOTAL LENGTH OF NORMAL FRR STACK

Table 657. Cross Reference for IHAFRRSO

Name	Offset	Hex	Tag
FRROEAX	8		
FRROLS	C		
FRRSO	0		
FRRSOASA	40		
FRRSOASC	6		03
FRRSOAX	4		
FRRSOCR3	0		
FRRSOCR4	4		
FRRSOCURR	C		
FRRSOELEN	8		
FRRSOEMP	0		

Table 657. Cross Reference for IHAFRRSO (continued)

Name	Offset	Hex Tag
FRRSOENTL	2C	
FRRSOENTR	0	
FRRSOENTS	58	
FRRSOEUT	7	80
FRRSOEXTL	2E	
FRRSOFLGS	4	
FRRSOFLG1	4	
FRRSOFLG2	5	
FRRSOFLG3	6	
FRRSOFLG4	7	
FRRSOFRA1	3	
FRRSOFRA	0	
FRRSOFULL	7	08
FRRSOGLB	7	01
FRRSOHEAD	0	
FRRSOKM	0	
FRRSOLAST	4	
FRRSOLCL	7	02
FRRSONCNL	7	40
FRRSOND	0	
FRRSONEST	4	40
FRRSONGLB	4	10
FRRSONLCL	4	20
FRRSONRTY	4	08
FRRSOPARM	8	
FRRSOPAS	6	
FRRSOPRIM	7	04
FRRSORCUR	4	80
FRRSORSA	10	
FRRSORTMA	38	
FRRSORTMW	28	
FRRSOSAS	2	
FRRSOXENT	0	
FRRSOXFLG	3	01
FRRSOXM	0	
FRRSOXSTA	3C	

## IHAFSD information

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### IHAFSD programming interface information

IHAFSD is a programming interface.

### IHAFSD heading information

<b>Common name:</b>	FICON Switch Data
<b>Macro ID:</b>	IHAFSD
<b>DSECT name:</b>	FSD - FICON Switch Data MHR - Monitor Header Record MPIR - Monitor Port Information Record SCR - Statistical Counter Record MCR - Monitor Control Record SCCW - Statistical Counter Control Word
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	FSD Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 252 (system copy), or user-specified (user copy) Key: 0, or user-specified Residency: Above 16MB, or user-specified
<b>Size:</b>	FSD -- X'002C' bytes MHR -- X'0010' bytes MPIR -- X'0010' bytes SCR -- X'0008' bytes MCR -- X'0100' bytes SCCW -- X'0004' bytes
<b>Created by:</b>	IOSVFSD
<b>Pointed to by:</b>	FsdDceFsdDataPtr, or IRDFSD_XFSDADDRESS
<b>Serialization:</b>	SYSZIOS,FSD resource

**Function:**

Maps the area containing the port statistical data returned by the IRDFSD service.

The area contains a header followed by a Monitor Information Record (MIR) for a single switch.

The MIR consists of one Monitor Header Record (MHR), one or more Monitor Port Information Records (MPIRs), and one or more Statistical Counter Records (SCRs) for each MPIR.

FSD

```

-----
|FsdHeader      |
| FsdID         |
| FsdVers       |
| FsdSubp       |
| FsdAreaSize   |
| FsdTimeStamp  |
| FsdDevn       |
| FsdFlags      |
| FsdOffsetOfMIR|
|FsdStartOfMIR  |
| MIR           |
|              |
-----

```

MIR

```

-----
| MHR           |
|-----|
| MPIR for some port      |
|-----|
| SCR for some counter for this port |
|-----|
| SCR for some counter for this port |
|-----|
| MPIR for some port      |
|-----|
| SCR for some counter for this port |
|-----|
| SCR for some counter for this port |
|-----|

```

## IHAFSD mapping

Table 658. Structure FSD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	FSD	FICON Switch Data
0	(0)	CHARACTER	44	FSDHEADER(0)	
0	(0)	CHARACTER	4	FSDID	FSD ID field
4	(4)	BITSTRING	1	FSDVERS	Version
5	(5)	CHARACTER	2		Reserved
7	(7)	BITSTRING	1	FSDSUBP	FSD Subpool
8	(8)	SIGNED	4	FSDAREASIZE	Total size of the area
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	16	FSDTIMESTAMP	Extended TOD clock value
32	(20)	CHARACTER	2	FSDDEVN	Device number
34	(22)	CHARACTER	2	FSDFLAGS(0)	Flags
34	(22)	BITSTRING	1		

Table 658. Structure FSD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
35	(23)	BITSTRING	1		
36	(24)	CHARACTER	4		Reserved
40	(28)	SIGNED	4	FSDOFFSETOFMIR	Offset from the beginning of FSD of the MIR data
44	(2C)	CHARACTER	1	FSDSTARTOFMIR(0)	
44	(2C)	X'2C'	0	FSD_LEN	"*-FSD"

Table 659. Structure MHR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MHR	Monitor Header Record
0	(0)	CHARACTER	1	MHRID	MHR ID is x'60'
1	(1)	BITSTRING	1	MHRCOUNT	MHR length in 4-byte words
2	(2)	CHARACTER	1	MHRSTATUS(0)	Status
		..1. ....		MHRELAPSEDTIMEOVERFLOW	"X'20'" Elapsed time overflow
		...1 ....		MHRCOUNTERSET	"X'10'" On indicates the complete counter set has been read, off indicates that a subset has been returned
		.... 1...		MHRRECORDTRUNCATED	"X'08'" On indicates that the byte count was not sufficient to transfer the entire record, and the record has been truncated
3	(3)	CHARACTER	3		Reserved
6	(6)	CHARACTER	2	MHRELAPSEDTIMECOUNT	Elapsed time counter
8	(8)	CHARACTER	1	MHRVERSIONSUPPORTED	Version supported
9	(9)	CHARACTER	1	MHRVERSIONPRESENTED	Version presented
10	(A)	CHARACTER	2		Reserved
12	(C)	CHARACTER	4	MHRSEQUENCENUMBER	Sequence Number
12	(C)	X'10'	0	MHR_LEN	"*-MHR"

Table 660. Structure MPIR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MPIR	Monitor Port Information record
0	(0)	CHARACTER	1	MPIRID	MPIR ID is x'61'
1	(1)	BITSTRING	1	MPIRCOUNT	MPIR length in 4-byte words
2	(2)	CHARACTER	1	MPIRSTATUS(0)	Status
		1... ....		MPIRSTATITCALCOUNTERSPROVIDED	"X'80'" Counters provided
		.1.. ....		MPIRLAST	"X'40'" Last MPIR
		...1 ....		MPIRINTERNALPORT	"X'10'" On indicates an internal port, off indicates an external port
3	(3)	CHARACTER	2		Reserved
5	(5)	BITSTRING	1	MPIRPORTNUMBER	Port number (always x'FF' for internal ports)
6	(6)	BITSTRING	1	MPIRPORTADDRESS	Port address
7	(7)	CHARACTER	1		Reserved
8	(8)	CHARACTER	4	MPIRPORTDESCRIPTOR	Port descriptor
12	(C)	CHARACTER	4		Reserved



Table 660. Structure MPIR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
12	(C)	X'10'	0	MPIR_LEN	"*-MPIR"

Table 661. Structure SCR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCR	Statistical Counter Record
0	(0)	CHARACTER	1	SCRSTATUS(0)	Status
		1... ....		SCRCOUNTERVALID	"X'80'" Counters provided
		.1.. ....		SCRLAST	"X'40'" Last SCR
		..1. ....		SCROVERFLOW	"X'20'" Counter overflowed
		.... ..11		SCRSCALE	"X'03'" Counter scaling factor: '00'b = scale by 1x '01'b = scale by 16x '10'b = scale by 256x '11'b = scale by 4096x
1	(1)	BITSTRING	1	SCRCOUNT	SCR length in 4-byte words
2	(2)	CHARACTER	2	SCRSTATISTICALCOUNTERID	Counter ID
4	(4)	SIGNED	4	SCRSTATISTICALCOUNTERDATA	Statistical Counter Data

## Performance Counter Identifiers

4	(4)	BITSTRING	0	SCIDNUMBEROFWORDSTRANSMITTED	"X'0901'"
4	(4)	BITSTRING	0	SCIDNUMBEROFWORDSRCEIVED	"X'0902'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESTRANSMITTED	"X'0903'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESRECEIVED	"X'0904'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFCLASS2FRAMESRECV	"X'0905'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFCLASS3FRAMESRECV	"X'0906'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFLINKCNTLFRAMESR	"X'0907'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFMULTICASTFRAMESR	"X'0908'"
4	(4)	BITSTRING	0	SCIDFRAMEPACINGTIME	"X'0909'"

## Frame Error Counter Identifiers

4	(4)	BITSTRING	0	SCIDNUMBEROFFDISPARITYERRORSIN	"X'0910'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFCRCERRORS	"X'0911'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFFRAMESGTFMAX	"X'0912'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFFRAMESLTFMIN	"X'0913'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFFRAMESWITHBADOEF	"X'0914'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFDISPARITYERRORSOUT	"X'0915'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFINVALIDORDSETS	"X'0916'"
4	(4)	BITSTRING	0	SCIDNUMBEROFFCLASS3FRAMESDISC	

Table 661. Structure SCR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'0917'"
Link Error Counter Identifiers					
4	(4)	BITSTRING	0	SCIDNUMBEROFLINKFAILURES	"X'0920'"
4	(4)	BITSTRING	0	SCIDNUMBEROFLOSSOF SYNC	"X'0921'"
4	(4)	BITSTRING	0	SCIDNUMBEROFLOSSOF SIGNAL	"X'0922'"
4	(4)	BITSTRING	0	SCIDNUMBEROFPROTOCOL ERRORS	"X'0923'"
4	(4)	BITSTRING	0	SCIDNUMBEROFINVTRANWORDS	"X'0924'"
4	(4)	BITSTRING	0	SCIDNUMBEROFADDRESSID ERRORS	"X'0925'"
4	(4)	BITSTRING	0	SCIDNUMBEROFLRR ISSUED BY PORT	"X'0926'"
4	(4)	BITSTRING	0	SCIDNUMBEROFOLS RECEIVED	"X'0927'"
4	(4)	BITSTRING	0	SCIDNUMBEROFOLS ISSUED	"X'0928'"
4	(4)	BITSTRING	0	SCIDERRORSUMMARYCOUNT	"X'0929'"
Constants Some of these will need to be updated as additional counter IDs are defined.					
4	(4)	X'A'	0	NUMBEROFDEFAULTCOUNTERS	"10"
4	(4)	X'1B'	0	NUMBEROFCOUNTERSDEFINED	"27"
4	(4)	X'901'	0	CODEMINIMUM	"2305" Lowest valid ID
4	(4)	X'929'	0	CODEMAXIMUM	"2345" Highest valid ID
Statistical Counter Scaling Factors					
		.... ....		SCRSCALE_1	"B'00000000'" Scale by 1
		.... ...1		SCRSCALE_16	"B'00000001'" Scale by 16
		.... ..1.		SCRSCALE_256	"B'00000010'" Scale by 256
		.... ..11		SCRSCALE_4096	"B'00000011'" Scale by 4096
4	(4)	X'8'	0	SCR_LEN	"*-SCR"

Table 662. Structure MCR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MCR	Monitor control record
0	(0)	CHARACTER	2		Reserved
2	(2)	CHARACTER	1	MCRMC	Monitor control
3	(3)	CHARACTER	1		Reserved
4	(4)	CHARACTER	4		Reserved
8	(8)	CHARACTER	1	MCRVERSION	Version requested
9	(9)	CHARACTER	2		Reserved
11	(B)	CHARACTER	1	MCRSTARTPORT	Starting Port Number
12	(C)	CHARACTER	3		Reserved
15	(F)	CHARACTER	1	MCRENDPORT	Ending Port Number
16	(10)	CHARACTER	240	MCRCCW	Counter control words
16	(10)	X'100'	0	MCR_LEN	"*-MCR"

Table 663. Structure SCCW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCCW	Statistical Counter Control Word (60 maximum)
0	(0)	CHARACTER	1	SCCWFLAG(0)	Flag byte
		1... ....		SCCWLAST	"X'80'" Last counter control word
1	(1)	CHARACTER	1		Reserved
2	(2)	BITSTRING	2	SCCWSTATISTICALCOUNTERID	Statistical Counter ID
CCW Op Codes					
		..11 ...1		FSDSETMONITOR	"X'31'"
		..11 ..1.		FSDREADPORTSTATISTICS	"X'32'"
Other Constants					
2	(2)	X'E2C440'	0	FSDIDNAME	"C'FSD '"
2	(2)	X'2'	0	FSDVERSION02	"2"
		.11. ....		MHRID60	"X'60'"
		.... .1..		MHRCOUNT04	"X'04'"
		.11. ...1		MPIRID61	"X'61'"
		.... .1..		MPIRCOUNT04	"X'04'"
2	(2)	X'4'	0	SCCW_LEN	"*-SCCW"

Table 664. Cross Reference for IHA FSD

Name	Offset	Hex	Tag
CODEMAXIMUM	4		929
CODEMINIMUM	4		901
FSD	0		
FSD_LEN	2C		2C
FSDAREASIZE	8		
FSDDEVN	20		
FSDFLAGS	22		
FSDHEADER	0		
FSDID	0		
FSDIDNAME	2		E2C440
FSDOFFSETOFMIR	28		
FSDREADPORTSTATISTICS	2		32
FSDSETMONITOR	2		31
FSDSTARTOFMIR	2C		
FSDSUBP	7		
FSDTIMESTAMP	10		
FSDVERS	4		
FSDVERSION02	2		2
MCR	0		
MCR_LEN	10		100

Table 664. Cross Reference for IHA FSD (continued)

Name	Offset	Hex Tag
MCRCCW	10	
MCRENDPORT	F	
MCRMC	2	
MCRSTARTPORT	B	
MCRVERSION	8	
MHR	0	
MHR_LEN	C	10
MHRCOUNT	1	
MHRCOUNTERSET	2	10
MHRCOUNT04	2	4
MHRELAPSEDTIMECOUNT	6	
MHRELAPSEDTIMEOVERFLOW	2	20
MHRID	0	
MHRID60	2	60
MHRRECORDTRUNCATED	2	8
MHRSEQUENCENUMBER	C	
MHRSTATUS	2	
MHRVERSIONPRESENTED	9	
MHRVERSIONSUPPORTED	8	
MPIR	0	
MPIR_LEN	C	10
MPIRCOUNT	1	
MPIRCOUNT04	2	4
MPIRID	0	
MPIRID61	2	61
MPIRINTERNALPORT	2	10
MPIRLAST	2	40
MPIRPORTADDRESS	6	
MPIRPORTDESCRIPTOR	8	
MPIRPORTNUMBER	5	
MPIRSTATITCALCOUNTERSPROVIDED	2	80
MPIRSTATUS	2	
NUMBEROFCOUNTERSDEFINED	4	1B
NUMBEROFDEFAULTCOUNTERS	4	A
SCCW	0	
SCCW_LEN	2	4
SCCWFLAG	0	
SCCWLAST	0	80
SCCWSTATISTICALCOUNTERID	2	

Table 664. Cross Reference for IHAFSD (continued)

Name	Offset	Hex Tag
SCIDERRORSUMMARYCOUNT	4	929
SCIDFRAMEPACINGTIME	4	909
SCIDNUMBEROFADDRESSIDERRORS	4	925
SCIDNUMBEROFCLASS2FRAMESRECV	4	905
SCIDNUMBEROFCLASS3FRAMESDISC	4	917
SCIDNUMBEROFCLASS3FRAMESRECV	4	906
SCIDNUMBEROFCRCERRORS	4	911
SCIDNUMBEROFDISPARITYERRORSIN	4	910
SCIDNUMBEROFDISPARITYERRORSOUT	4	915
SCIDNUMBEROFFRAMESGTFCMAX	4	912
SCIDNUMBEROFFRAMESLTFCMIN	4	913
SCIDNUMBEROFFRAMESRECEIVED	4	904
SCIDNUMBEROFFRAMESTRANSMITTED	4	903
SCIDNUMBEROFFRAMESWITHBADEOF	4	914
SCIDNUMBEROFINVALIDORDSETS	4	916
SCIDNUMBEROFINVTRANWORDS	4	924
SCIDNUMBEROFLINKCNTLFRAMESR	4	907
SCIDNUMBEROFLINKFAILURES	4	920
SCIDNUMBEROFLOSSOF SIGNAL	4	922
SCIDNUMBEROFLOSSOF SYNC	4	921
SCIDNUMBEROFLRRISSUEDBYPORT	4	926
SCIDNUMBEROFMULTICASTFRAMESR	4	908
SCIDNUMBEROFOLS ISSUED	4	928
SCIDNUMBEROFOLSRECEIVED	4	927
SCIDNUMBEROFPROTOCOLERRORS	4	923
SCIDNUMBEROFWORDSRECEIVED	4	902
SCIDNUMBEROFWORDSTRANSMITTED	4	901
SCR	0	
SCR_LEN	4	8
SCRCOUNT	1	
SCR COUNTERVALID	0	80
SCR LAST	0	40
SCR OVERFLOW	0	20
SCR SCALE	0	3
SCR SCALE_1	4	0
SCR SCALE_16	4	1
SCR SCALE_256	4	2
SCR SCALE_4096	4	3
SCR STATISTICAL COUNTER DATA	4	

Table 664. Cross Reference for IHAFSD (continued)

Name	Offset	Hex Tag
SCRSTATISTICALCOUNTERID	2	
SCRSTATUS	0	

## IHAGSF information

### IHAGSF programming interface information

IHAGSF is a programming interface.

### IHAGSF heading information

<b>Common name:</b>	Guarded Storage Facility mappings
<b>Macro ID:</b>	IHAGSF
<b>DSECT name:</b>	GSCB GSEPL
<b>Owning component:</b>	Supervisor (SC1C5)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: user-supplied Key: user-supplied Residency: any
<b>Size:</b>	Gscb -- X'0020' bytes GsePl -- X'0030' bytes
<b>Created by:</b>	User, and used with GSF instructions System for saving GSF status
<b>Pointed to by:</b>	User parameter
<b>Serialization:</b>	Workunit-Active
<b>Function:</b>	Maps areas used in working with the Guarded Storage Facility. Read the Principles of Operation carefully before using GSF.

### IHAGSF mapping

Table 665. Structure GSCB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GSCB	
0	(0)	CHARACTER	8	GSCBR000	Reserved
8	(8)	CHARACTER	8	GSCBGSD	Guarded-Storage Designation This area contains a 64-bit address of the storage to be guarded, where the number of leftmost bits to be used for the address is indicated indirectly by the value in GscbGSC and the bits in the address after those leftmost bits are treated as containing zeros
8	(8)	BITSTRING	1	GSCBGSDBYTE0	Leftmost bits of the addr
9	(9)	BITSTRING	1	GSCBGSDBYTE1	Leftmost bits of the addr
10	(A)	BITSTRING	1	GSCBGSDBYTE2	Leftmost bits of the addr

Table 665. Structure GSCB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
11	(B)	BITSTRING	1	GSCBGSDBYTE3	Leftmost bits of the addr
12	(C)	BITSTRING	1	GSCBGSDBYTE4	Leftmost bits of the addr
13	(D)	BITSTRING	1	GSCBGSDBYTE5	Leftmost bits of the addr
14	(E)	BITSTRING	1	GSCBGSDBYTE6	
Bit definitions:					
		.... .111		GSCBGLS	"X'07'" Mask to isolate 3-bit Guarded-Load Shift value to be used by LLGFSG instructions
15	(F)	BITSTRING	1	GSCBGSDBYTE7	
Bit definitions:					
		..11 1111		GSCBGSC	"X'3F'" Mask to isolate 6-bit Guarded-Storage Characteristic - indicates indirectly the number of leftmost bits to be used to form the address of the area to be guarded. It also indicates the alignment of the guarded-storage origin and the size of a guarded storage section. The number must be in the range 25 through 56. Read the Principles of Operation carefully.
16	(10)	BITSTRING	8	GSCBGSSM	Guarded-Storage Section Mask. Each bit controls presentation of guarded storage events related to the respective section of the area
24	(18)	ADDRESS	8	GSCBGSEPLA	Guarded-Storage-Event Parameter List Address
24	(18)	X'20'	0	GSCB_LEN	"*-Gscb"

Table 666. Structure GSEPL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	GSEPL	Guarded-Storage-Event Parameter List
0	(0)	CHARACTER	8	GSEPLFIRSTDOUBLEWORD	
0	(0)	CHARACTER	1		Reserved
1	(1)	BITSTRING	1	GSEAM	Addressing Mode
Bit definitions:					
		.... ..1.		GSEAME	"X'02'" On - AMODE 64. GseAmB will also be on.
		.... ...1		GSEAMB	"X'01'" On - AMODE 31 if GseAmE is off, AMODE 64 otherwise
2	(2)	BITSTRING	1	GSECI	Guarded-Storage Event Cause Indications
Bit definitions:					
		1... ....		GSECITX	"X'80'" On - the Event occurred while the CPU was in transactional execution mode
		.1.. ....		GSECICX	"X'40'" On - the Event occurred while the CPU was in Constrained transactional execution mode (meaningful only if bit GseCiTx is on)

Table 666. Structure GSEPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		GSECIIN	"X'01'" Off - the Event was caused by a Load Guarded (LLG) instruction. On - the Event was caused by a Load Logical and Shift Guarded (LLGFSG) instruction
3	(3)	BITSTRING	1	GSEAI	Guarded-Storage Event Access Information
Bit definitions:					
		.1.. ....		GSEAIT	"X'40'" Event Translation mode (PSW bit 5, DAT enablement)
		..11 ....		GSEAIASC	"X'30'" Mask to isolate 2-bit Event Address Space indication (PSW bits 16-17, ASC mode)
		..11 ....		GSEAIAS	"X'30'"
		.... 1111		GSEAIAR	"X'0F'" Mask to isolate the AR number used by the LGG or LLGFSG instruction, valid only when the event occurred in AR mode
4	(4)	CHARACTER	4		Reserved
8	(8)	ADDRESS	8	GSEHA	Handler Address
16	(10)	ADDRESS	8	GSEIA	Instruction Address
24	(18)	ADDRESS	8	GSEOA	Operand Address
32	(20)	ADDRESS	8	GSEIR	Intermediate Result
40	(28)	ADDRESS	8	GSEIRA	Return Address
40	(28)	X'30'	0	GSEPL_LEN	"*-GsePl"

Table 667. Cross Reference for IHAGSF

Name	Offset	Hex	Tag
GSCB	0		
GSCB_LEN	18		20
GSCBGLS	E		7
GSCBGSC	F		3F
GSCBGSD	8		
GSCBGSDBYTE0	8		
GSCBGSDBYTE1	9		
GSCBGSDBYTE2	A		
GSCBGSDBYTE3	B		
GSCBGSDBYTE4	C		
GSCBGSDBYTE5	D		
GSCBGSDBYTE6	E		
GSCBGSDBYTE7	F		
GSCBGSEPLA	18		
GSCBGSSM	10		
GSCBR000	0		
GSEAI	3		
GSEAIAR	3		F



Table 667. Cross Reference for IHAGSF (continued)

Name	Offset	Hex Tag
GSEAIAS	3	30
GSEAIASC	3	30
GSEAIT	3	40
GSEAM	1	
GSEAMB	1	1
GSEAME	1	2
GSECI	2	
GSECICX	2	40
GSECIIN	2	1
GSECITX	2	80
GSEHA	8	
GSEIA	10	
GSEIR	20	
GSEOA	18	
GSEPL	0	
GSEPL_LEN	28	30
GSEPLFIRSTDOUBLEWORD	0	
GSERA	28	

## IHAGSRET information

### IHAGSRET programming interface information

IHAGSRET is a programming interface.

### IHAGSRET heading information

<b>Common name:</b>	IEAGSF Return Information
<b>Macro ID:</b>	IHAGSRET
<b>DSECT name:</b>	NONE
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None required
<b>Function:</b>	Equates for IEAGSF return and reason codes

## IHAGSRET mapping

Table 668. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		
IHAGSRET_1; Return Code Information It is guaranteed that no reason code will be reused (i.e., the same reason code will not be used for more than one return code). Also note carefully that bits 0-15 of the reason code may contain component-diagnostic data and must not be assumed to be 0.					
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'0000FFFF" Use this mask to isolate the non component-diagnostic portion of the reason code.
IEAGSF Return and Reason Code definitions					
	....	....		IEAGSFRC_OK	"X'00000000" Meaning: IEAGSF request successful. Action: None required.
	....	1...		IEAGSFRC_INVPARM	"X'00000008" Meaning: IEAGSF request specified parameters that are not valid. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000001" Meaning: Incorrect value passed to target routine. Action: Check for possible storage overlay.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000002" Meaning: The TCB specified by the TTOKEN for an IEAGSF UPDATE request is no longer valid, or is terminating, or is neither the jobstep program task nor a subtask of the jobstep program task. Action: N/A
	....	11..		IEAGSFRC_ENV	"X'0000000C" Meaning: Environmental error Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000001" Meaning: IEAGSF was issued from an asynchronous exit routine (IRB). Action: Avoid issuing IEAGSF from an asynchronous exit routine.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000002" Meaning: IEAGSF was issued from an SRB. Action: Avoid issuing IEAGSF from an SRB
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000003" Meaning: IEAGSF START was issued for a task that was neither the jobstep program task nor a subtask of the jobstep program task. Action: Only issue IEAGSF from the jobstep program task or a subtask of that task.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000004" Meaning: IEAGSF START was issued while holding a lock other than the Local lock. Action: Avoid using IEAGSF while holding a lock other than the Local lock.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000005" Meaning: Necessary system storage could not be obtained from LSQA. Action: Use IEAGSF START at an earlier time in the jobstep.
0	(0)	BITSTRING	0	IEAGSFRCNOCODEMASK	"X'00000006" Meaning: IEAGSF START was issued from a workunit with at least one bit on in the PSASUPER word. Action: Avoid issuing IEAGSF from a workunit with a PSASUPER bit on.

Table 668. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IEAGSFRSNOTAVAILABLE	"X'00000C07'" Meaning: The Guarded-Storage facility is not available on this system. Action: Ensure that the hardware supports the facility.
0	(0)	BITSTRING	0	IEAGSFRSUPDATEINXM	"X'00000C08'" Meaning: IEAGSF UPDATE has been called with a Primary address space that is different than the Home address space. Action: Only invoke IEAGSF UPDATE with the Primary address space equal to the Home address space.

Table 669. Cross Reference for IHAGSRET

Name	Offset	Hex Tag
IEAGSFRC_ENV	0	C
IEAGSFRC_INVPARM	0	8
IEAGSFRC_OK	0	0
IEAGSFRSNBADFUNCTION	0	801
IEAGSFRSNCODEMASK	0	FFFF
IEAGSFRSNFROMASYNCHEXIT	0	C01
IEAGSFRSNFROMNOTBITCB	0	C03
IEAGSFRSNFROMSRB	0	C02
IEAGSFRSNLOCKED	0	C04
IEAGSFRSNNOSTORAGE	0	C05
IEAGSFRSNOTAVAILABLE	0	C07
IEAGSFRSNSUPERBIT	0	C06
IEAGSFRSUPDATEINXM	0	C08
IEAGSFRSNUPDATETCBBAD	0	802

## IHAIFUNC information

### IHAIFUNC programming interface information

IHAIFUNC is a programming interface.

### IHAIFUNC heading information

<b>Common name:</b>	Instruction Functions
<b>Macro ID:</b>	IHAIFUNC
<b>DSECT name:</b>	IFUNC
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A

**Size:** IFUNC -- X'0048' bytes

**Created by:** IEAVECVT

**Pointed to by:** ECVT\_IFunc\_Addr

**Serialization:** None needed

**Function:** Maps the functions available for particular instructions  
0-origin bit "n" of an area corresponds to function "n",  
where the functions are documented in the Principles of  
Operation. Names are provided for many of the  
individual function code bits.

## IHAIFUNC mapping

Table 670. Structure IFUNC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFUNC	
0	(0)	CHARACTER	8	IFUNC_HEADER	
0	(0)	CHARACTER	5	IFUNC_ID	'IFUNC'
5	(5)	BITSTRING	1	IFUNC_VERSION	Version
6	(6)	SIGNED	2	IFUNC_LENGTH	Length of IFUNC
8	(8)	CHARACTER	64	IFUNC_DATA	
8	(8)	BITSTRING	16	IFUNC_PRNO	Function bits for PRNO instruction. 0-origin bit "no" is 1 when function code "n" is available. "n" can range from 0 to 127
8	(8)	BITSTRING	1	IFUNC_PRNO_BYTE0	FCs 0-7
Bit definitions:					
		1... ..		IFUNC_PRNO_FC0	"X'80'"
		1... ..		IFUNC_PRNO_QUERY	"X'80'"
		...1 ..		IFUNC_PRNO_FC3	"X'10'"
		...1 ..		IFUNC_PRNO_SHA_512_TRNG	"X'10'"
9	(9)	BITSTRING	13		Bytes 1-13
22	(16)	BITSTRING	1	IFUNC_PRNO_BYTE14	FCs 112-119
Bit definitions:					
		1... ..		IFUNC_PRNO_FC112	"X'80'"
		1... ..		IFUNC_PRNO_TRNG_QRTCR	"X'80'" Query raw to conditioned ratio
		..1. ....		IFUNC_PRNO_FC114	"X'20'"
		..1. ....		IFUNC_PRNO_TRNG	"X'20'"
23	(17)	BITSTRING	1		Byte 15
24	(18)	BITSTRING	16	IFUNC_KIMD	Function bits for KIMD instruction. 0-origin bit "no" is 1 when function code "n" is available. "n" can range from 0 to 127
24	(18)	BITSTRING	1	IFUNC_KIMD_BYTE0	FCs 0-7
Bit definitions:					
		1... ..		IFUNC_KIMD_FC0	"X'80'"
		1... ..		IFUNC_KIMD_QUERY	"X'80'"

Table 670. Structure IFUNC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		IFUNC_KIMD_FC1	"X'40'"
		.1.. ....		IFUNC_KIMD_SHA_1	"X'40'"
		..1. ....		IFUNC_KIMD_FC2	"X'20'"
		..1. ....		IFUNC_KIMD_SHA_256	"X'20'"
		...1 ....		IFUNC_KIMD_FC3	"X'10'"
		...1 ....		IFUNC_KIMD_SHA_512	"X'10'"
25	(19)	BITSTRING	3		Bytes 1-3
28	(1C)	BITSTRING	1	IFUNC_KIMD_BYTE4	FCs 32-39
Bit definitions:					
		1... ....		IFUNC_KIMD_FC32	"X'80'"
		1... ....		IFUNC_KIMD_SHA3_224	"X'80'"
		.1.. ....		IFUNC_KIMD_FC33	"X'40'"
		.1.. ....		IFUNC_KIMD_SHA3_256	"X'40'"
		..1. ....		IFUNC_KIMD_FC34	"X'20'"
		..1. ....		IFUNC_KIMD_SHA3_384	"X'20'"
		...1 ....		IFUNC_KIMD_FC35	"X'10'"
		...1 ....		IFUNC_KIMD_SHA3_512	"X'10'"
		.... 1...		IFUNC_KIMD_FC36	"X'08'"
		.... 1...		IFUNC_KIMD_SHAKE_128	"X'08'"
		.... .1..		IFUNC_KIMD_FC37	"X'04'"
		.... .1..		IFUNC_KIMD_SHAKE_256	"X'04'"
29	(1D)	BITSTRING	3		Bytes 5-7
32	(20)	BITSTRING	1	IFUNC_KIMD_BYTE8	FCs 64-71
Bit definitions:					
		.1.. ....		IFUNC_KIMD_FC64	"X'40'"
		.1.. ....		IFUNC_KIMD_GHASH	"X'40'"
33	(21)	BITSTRING	7		Bytes 9-15
40	(28)	BITSTRING	16	IFUNC_KLMD	Function bits for KLMD instruction. 0-origin bit "no" is 1 when function code "n" is available. "n" can range from 0 to 127
40	(28)	BITSTRING	1	IFUNC_KLMD_BYTE0	FCs 0-7
Bit definitions:					
		1... ....		IFUNC_KLMD_FC0	"X'80'"
		1... ....		IFUNC_KLMD_QUERY	"X'80'"
		.1.. ....		IFUNC_KLMD_FC1	"X'40'"
		.1.. ....		IFUNC_KLMD_SHA_1	"X'40'"
		..1. ....		IFUNC_KLMD_FC2	"X'20'"
		..1. ....		IFUNC_KLMD_SHA_256	"X'20'"
		...1 ....		IFUNC_KLMD_FC3	"X'10'"
		...1 ....		IFUNC_KLMD_SHA_512	"X'10'"
41	(29)	BITSTRING	3		Bytes 1-3
44	(2C)	BITSTRING	1	IFUNC_KLMD_BYTE4	FCs 32-39

Table 670. Structure IFUNC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Bit definitions:					
		1... ..		IFUNC_KLMD_FC32	"X'80' "
		1... ..		IFUNC_KLMD_SHA3_224	"X'80' "
		.1.. ....		IFUNC_KLMD_FC33	"X'40' "
		.1.. ....		IFUNC_KLMD_SHA3_256	"X'40' "
		..1. ....		IFUNC_KLMD_FC34	"X'20' "
		..1. ....		IFUNC_KLMD_SHA3_384	"X'20' "
		...1 ....		IFUNC_KLMD_FC35	"X'10' "
		...1 ....		IFUNC_KLMD_SHA3_512	"X'10' "
		.... 1...		IFUNC_KLMD_FC36	"X'08' "
		.... 1...		IFUNC_KLMD_SHAKE_128	"X'08' "
		.... .1..		IFUNC_KLMD_FC37	"X'04' "
		.... .1..		IFUNC_KLMD_SHAKE_256	"X'04' "
45	(2D)	BITSTRING	11		Bytes 5-15
56	(38)	BITSTRING	16	IFUNC_KDSA	Function bits for KDSA instruction. 0-origin bit "no" is 1 when function code "n" is available. "n" can range from 0 to 127
56	(38)	BITSTRING	1	IFUNC_KDSA_BYTE0	FCs 0-7
Bit definitions:					
		1... ..		IFUNC_KDSA_FC0	"X'80' "
		1... ..		IFUNC_KDSA_QUERY	"X'80' "
		.1.. ....		IFUNC_KDSA_FC1	"X'40' "
		.1.. ....		IFUNC_KDSA_ECDSA_VERIFY_P256	"X'40' "
		..1. ....		IFUNC_KDSA_FC2	"X'20' "
		..1. ....		IFUNC_KDSA_ECDSA_VERIFY_P384	"X'20' "
		...1 ....		IFUNC_KDSA_FC3	"X'10' "
		...1 ....		IFUNC_KDSA_ECDSA_VERIFY_P521	"X'10' "
57	(39)	BITSTRING	1	IFUNC_KDSA_BYTE1	FCs 8-15
Bit definitions:					
		.1.. ....		IFUNC_KDSA_FC9	"X'40' "
		.1.. ....		IFUNC_KDSA_ECDSA_SIGN_P256	"X'40' "
		..1. ....		IFUNC_KDSA_FC10	"X'20' "
		..1. ....		IFUNC_KDSA_ECDSA_SIGN_P384	"X'20' "
		...1 ....		IFUNC_KDSA_FC11	"X'10' "
		...1 ....		IFUNC_KDSA_ECDSA_SIGN_P521	"X'10' "
58	(3A)	BITSTRING	1	IFUNC_KDSA_BYTE2	FCs 16-23
Bit definitions:					
		.1.. ....		IFUNC_KDSA_FC17	"X'40' "

Table 670. Structure IFUNC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1... ....		IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P256	"X'40' "
		..1. ....		IFUNC_KDSA_FC18	"X'20' "
		..1. ....		IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P384	"X'20' "
		...1 ....		IFUNC_KDSA_FC19	"X'10' "
		...1 ....		IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P521	"X'10' "
59	(3B)	BITSTRING	1		Byte 3
60	(3C)	BITSTRING	1	IFUNC_KDSA_BYTE4	FCs 32-39
Bit definitions:					
		1... ....		IFUNC_KDSA_FC32	"X'80' "
		1... ....		IFUNC_KDSA_EDDSA_VERIFY_ED25519	"X'80' "
		.... 1...		IFUNC_KDSA_FC36	"X'08' "
		.... 1...		IFUNC_KDSA_EDDSA_VERIFY_ED448	"X'08' "
61	(3D)	BITSTRING	1	IFUNC_KDSA_BYTE5	FCs 40-47
Bit definitions:					
		1... ....		IFUNC_KDSA_FC40	"X'80' "
		1... ....		IFUNC_KDSA_EDDSA_SIGN_ED25519	"X'80' "
		.... 1...		IFUNC_KDSA_FC44	"X'08' "
		.... 1...		IFUNC_KDSA_EDDSA_SIGN_ED448	"X'08' "
62	(3E)	BITSTRING	1	IFUNC_KDSA_BYTE6	FCs 48-55
Bit definitions:					
		1... ....		IFUNC_KDSA_FC48	"X'80' "
		1... ....		IFUNC_KDSA_ENCRYPTED_EDDSA_SIGN_ED25519	"X'80' "
		.... 1...		IFUNC_KDSA_FC52	"X'08' "
		.... 1...		IFUNC_KDSA_ENCRYPTED_EDDSA_SIGN_ED448	"X'08' "
63	(3F)	BITSTRING	9		Bytes 7-15
63	(3F)	X'0'	0	IFUNC_VERSION_0	"0"
63	(3F)	X'0'	0	IFUNC_VERSION_CURRENT	"0"
63	(3F)	X'48'	0	IFUNC_LEN	"*-IFUNC"

Table 671. Cross Reference for IHAIFUNC

Name	Offset	Hex Tag
IFUNC	0	
IFUNC_DATA	8	

Table 671. Cross Reference for IHAIFUNC (continued)

Name	Offset	Hex Tag
IFUNC_HEADER	0	
IFUNC_ID	0	
IFUNC_KDSA	38	
IFUNC_KDSA_BYTE0	38	
IFUNC_KDSA_BYTE1	39	
IFUNC_KDSA_BYTE2	3A	
IFUNC_KDSA_BYTE4	3C	
IFUNC_KDSA_BYTE5	3D	
IFUNC_KDSA_BYTE6	3E	
IFUNC_KDSA_ECDSA_SIGN_P256	39	40
IFUNC_KDSA_ECDSA_SIGN_P384	39	20
IFUNC_KDSA_ECDSA_SIGN_P521	39	10
IFUNC_KDSA_ECDSA_VERIFY_P256	38	40
IFUNC_KDSA_ECDSA_VERIFY_P384	38	20
IFUNC_KDSA_ECDSA_VERIFY_P521	38	10
IFUNC_KDSA_EDDSA_SIGN_ED25519	3D	80
IFUNC_KDSA_EDDSA_SIGN_ED448	3D	8
IFUNC_KDSA_EDDSA_VERIFY_ED25519	3C	80
IFUNC_KDSA_EDDSA_VERIFY_ED448	3C	8
IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P256	3A	40
IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P384	3A	20
IFUNC_KDSA_ENCRYPTED_ECDSA_SIGN_P521	3A	10
IFUNC_KDSA_ENCRYPTED_EDDSA_SIGN_ED25519	3E	80
IFUNC_KDSA_ENCRYPTED_EDDSA_SIGN_ED448	3E	8
IFUNC_KDSA_FC0	38	80
IFUNC_KDSA_FC1	38	40
IFUNC_KDSA_FC10	39	20
IFUNC_KDSA_FC11	39	10
IFUNC_KDSA_FC17	3A	40
IFUNC_KDSA_FC18	3A	20
IFUNC_KDSA_FC19	3A	10
IFUNC_KDSA_FC2	38	20
IFUNC_KDSA_FC3	38	10
IFUNC_KDSA_FC32	3C	80
IFUNC_KDSA_FC36	3C	8
IFUNC_KDSA_FC40	3D	80
IFUNC_KDSA_FC44	3D	8
IFUNC_KDSA_FC48	3E	80
IFUNC_KDSA_FC52	3E	8



Table 671. Cross Reference for IHAIFUNC (continued)

Name	Offset	Hex Tag
IFUNC_KDSA_FC9	39	40
IFUNC_KDSA_QUERY	38	80
IFUNC_KIMD	18	
IFUNC_KIMD_BYTE0	18	
IFUNC_KIMD_BYTE4	1C	
IFUNC_KIMD_BYTE8	20	
IFUNC_KIMD_FC0	18	80
IFUNC_KIMD_FC1	18	40
IFUNC_KIMD_FC2	18	20
IFUNC_KIMD_FC3	18	10
IFUNC_KIMD_FC32	1C	80
IFUNC_KIMD_FC33	1C	40
IFUNC_KIMD_FC34	1C	20
IFUNC_KIMD_FC35	1C	10
IFUNC_KIMD_FC36	1C	8
IFUNC_KIMD_FC37	1C	4
IFUNC_KIMD_FC64	20	40
IFUNC_KIMD_GHASH	20	40
IFUNC_KIMD_QUERY	18	80
IFUNC_KIMD_SHA_1	18	40
IFUNC_KIMD_SHA_256	18	20
IFUNC_KIMD_SHA_512	18	10
IFUNC_KIMD_SHAKE_128	1C	8
IFUNC_KIMD_SHAKE_256	1C	4
IFUNC_KIMD_SHA3_224	1C	80
IFUNC_KIMD_SHA3_256	1C	40
IFUNC_KIMD_SHA3_384	1C	20
IFUNC_KIMD_SHA3_512	1C	10
IFUNC_KLMD	28	
IFUNC_KLMD_BYTE0	28	
IFUNC_KLMD_BYTE4	2C	
IFUNC_KLMD_FC0	28	80
IFUNC_KLMD_FC1	28	40
IFUNC_KLMD_FC2	28	20
IFUNC_KLMD_FC3	28	10
IFUNC_KLMD_FC32	2C	80
IFUNC_KLMD_FC33	2C	40
IFUNC_KLMD_FC34	2C	20
IFUNC_KLMD_FC35	2C	10

Table 671. Cross Reference for IHAIFUNC (continued)

Name	Offset	Hex Tag
IFUNC_KLMD_FC36	2C	8
IFUNC_KLMD_FC37	2C	4
IFUNC_KLMD_QUERY	28	80
IFUNC_KLMD_SHA_1	28	40
IFUNC_KLMD_SHA_256	28	20
IFUNC_KLMD_SHA_512	28	10
IFUNC_KLMD_SHAKE_128	2C	8
IFUNC_KLMD_SHAKE_256	2C	4
IFUNC_KLMD_SHA3_224	2C	80
IFUNC_KLMD_SHA3_256	2C	40
IFUNC_KLMD_SHA3_384	2C	20
IFUNC_KLMD_SHA3_512	2C	10
IFUNC_LEN	3F	48
IFUNC_LENGTH	6	
IFUNC_PRNO	8	
IFUNC_PRNO_BYTE0	8	
IFUNC_PRNO_BYTE14	16	
IFUNC_PRNO_FC0	8	80
IFUNC_PRNO_FC112	16	80
IFUNC_PRNO_FC114	16	20
IFUNC_PRNO_FC3	8	10
IFUNC_PRNO_QUERY	8	80
IFUNC_PRNO_SHA_512_TRNG	8	10
IFUNC_PRNO_TRNG	16	20
IFUNC_PRNO_TRNG_QRTCR	16	80
IFUNC_VERSION	5	
IFUNC_VERSION_CURRENT	3F	0
IFUNC_VERSION_0	3F	0

## IHAIPA information

### IHAIPA programming interface information

IHAIPA is a programming interface.

### IHAIPA heading information

**Common name:** Initialization Parameter Area

**Macro ID:** IHAIPA

**DSECT name:** IPA IPAPDE IPAPLI

**Owning component:** Nucleus Initialization Program (SC1C8)

**Eye-catcher ID:** IPA  
Offset: 0  
Length: 4

**Storage attributes:** Main Storage: NO  
Virtual Storage: YES  
Auxiliary Storage: YES  
Subpool: 241  
Key: 0  
Data Space: NO  
Residency: Above 16M virtual

**Size:** IPA -- X'0BF8' bytes  
IPAPDE -- X'0008' bytes  
IPAPLI -- X'0040' bytes

**Created by:** IEAVNIPX

**Pointed to by:** ECVTIPA

**Serialization:** NONE

**Function:** The IPA contains system initialization parameters defined in:  
1) the load parameter used to IPL.  
2) the LOADxx member used to IPL.  
3) all IEASYSxx members used to IPL.  
Each set of parameter information is mapped by dsect IPAPDE.

## IHAIPA mapping

Table 672. Structure IPA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IPA	Initialization Parameter Area
0	(0)	CHARACTER	96	IPAHEAD	Header section
0	(0)	CHARACTER	4	IPAIID	Eye-catcher
4	(4)	SIGNED	2	IPALEN	Length
6	(6)	BITSTRING	1	IPASP	Subpool
7	(7)	BITSTRING	1	IPAVER	Version number
8	(8)	CHARACTER	8	IPAICTOD	TOD at completion of system initialization
16	(10)	CHARACTER	8	IPALPARM	IPL load parameter
16	(10)	CHARACTER	4	IPAIODFU	IODF unit address
20	(14)	CHARACTER	2	IPALLOADS	LOADxx suffix
22	(16)	CHARACTER	1	IPAPROMT	Operator prompt flag. See equates IPAPRxxx
23	(17)	CHARACTER	1	IPANUCID	Nucleus ID
24	(18)	CHARACTER	24	IPANAMES	System name values
24	(18)	CHARACTER	8	IPAHWNAM	HWNAM value
32	(20)	CHARACTER	8	IPALPNAM	LPARNAM value
40	(28)	CHARACTER	8	IPAVMNAM	VMUSERID value
48	(30)	CHARACTER	44	IPALPDSN	IPL load parameter dataset name
92	(5C)	CHARACTER	4	IPALPDDV	IPL load parameter dataset device number

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
96	(60)	CHARACTER	2056	IPALOAD	LOADxx section
96	(60)	CHARACTER	64	IPAIODF	IODF card image
96	(60)	CHARACTER	2	IPAIOSUF	IODF dataset name suffix
98	(62)	CHARACTER	1		Reserved
99	(63)	CHARACTER	8	IPAIOHLQ	IODF dataset name high-level qualifier
107	(6B)	CHARACTER	1		Reserved
108	(6C)	CHARACTER	8	IPAIOCFG	Operating system configuration identifier
116	(74)	CHARACTER	1		Reserved
117	(75)	CHARACTER	2	IPAIOEDT	EDT identifier
119	(77)	CHARACTER	1		Reserved
120	(78)	CHARACTER	1	IPAIODDS	Load all device support modules ("Y"=" ", or "N")
160	(A0)	CHARACTER	64	IPASPARM	SYSPPARM card image
160	(A0)	CHARACTER	2	IPASPSUF	IEASYSxx suffix
160	(A0)	CHARACTER	63	IPASPLST	List of IEASYSxx suffixes in parentheses
224	(E0)	CHARACTER	64	IPASCAT	SYSPPAT card image
224	(E0)	CHARACTER	6	IPASCVOL	Master catalog VOLSER
230	(E6)	CHARACTER	1	IPASCTYP	Master catalog type (" "=VSAM, "1"=ICF, "2"=ICF and SYS%-SYS1 conversion)
231	(E7)	CHARACTER	1	IPASCANL	Alias name level
232	(E8)	CHARACTER	2	IPASCCAS	CAS service task lower limit ("18" to "B4")
234	(EA)	CHARACTER	44	IPASCDSN	Master catalog dataset name
278	(116)	CHARACTER	8	IPASCHLQ	HLQ of master cat
288	(120)	CHARACTER	64	IPASYM	IEASYM card image
288	(120)	CHARACTER	2	IPASYSUF	IEASYMxx suffix
288	(120)	CHARACTER	63	IPASYLST	List of IEASYMxx suffixes in parentheses
352	(160)	CHARACTER	64	IPAPLEX	SYSPPLEX card image
352	(160)	CHARACTER	8	IPASXNAM	SYSPPLEX name
360	(168)	CHARACTER	1		Reserved
361	(169)	CHARACTER	1	IPASXSCU	SYSCLONE uniqueness indicator
416	(1A0)	CHARACTER	64	IPAPLIB	PARMLIB card images
416	(1A0)	CHARACTER	44	IPAPLDSN	PARMLIB dataset name
460	(1CC)	CHARACTER	1		Reserved
461	(1CD)	CHARACTER	6	IPAPLVOL	PARMLIB VOLSER
467	(1D3)	CHARACTER	12		Reserved
479	(1DF)	BITSTRING	1	IPAPLFLG	PARMLIB usage flags

## Bit definitions:

1... ....	IPAPLUSE	"X'80'" PARMLIB in use
.1.. ....	IPAPLDEF	"X'40'" Default PARMLIB
..1. ....	IPAPLCAT	"X'20'" IPAPLVOL found from catalog
.... 1...	IPAPLLCF	"X'08'" PARMLIB not used - LOCATE failed

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		IPAPLMNF	"X'04'" PARMLIB not used - MOUNT failed
		.... ..1.		IPAPLOPF	"X'02'" PARMLIB not used - OPEN failed
1504	(5E0)	CHARACTER	64	IPASTMTMM	This is not part of the programming interface.
1696	(6A0)	CHARACTER	64	IPASTMT	Reserved, use from the end in case we need to add more MACHMIG statements
2080	(820)	CHARACTER	40		Reserved
2120	(848)	CHARACTER	8	IPAILTOD	Local time at completion of system initialization, in TOD format.
2128	(850)	ADDRESS	4	IPAMACHMIGADDR	Address of MACHMIG statements. This is an array of 64-character card images. The number of array entries is indicated by IPANumMachmigs
2132	(854)	SIGNED	2	IPANUMMACHMIGS	Number of MACHMIG statements
2134	(856)	SIGNED	2	IPAPLNUMX	Number of PARMLIB card images. The card images must be found by using field IPAPLIB@. This field will be 0 (as will IPAPLIB@) on older systems where IPAPLNUMX is not functional.
2136	(858)	ADDRESS	4	IPAPLIB@	Address of PARMLIB card images when IPAPLNUMX is non-zero. The card images are contiguous. Each PARMLIB card is mapped by DSECT IPAPLI
2140	(85C)	SIGNED	2	IPANUMPDES	Number of parameter descriptor elements in IPASYS
2142	(85E)	CHARACTER	1	IPAMTLSH	MTLSHARE VALUE
2143	(85F)	CHARACTER	1	IPAARCHL	Architecture Level
2144	(860)	CHARACTER	4	IPANUCL	NUCLST information
2144	(860)	CHARACTER	2	IPANLID	NUCLSTxx member used
2146	(862)	CHARACTER	1	IPANUCW	Load wait state if NUCLSTxx INCLUDE member not found
2147	(863)	CHARACTER	1		Reserved
2148	(864)	SIGNED	2	IPAPLNUM	Number of PARMLIB card images. You can find the PARMLIB images in the IPAPLIB field of this mapping. This is the "old" field. It is preferred that you use IPAPLNUMX. If the number of user-specifiable parmlibs ever exceeds 16 (which could mean that there are 17 total parmlibs, if the system has added SYS1.PARMLIB), IPAPLNUM will never exceed 17. At such a time, IPAPLNUMX and IPAPLIB would have to be used to get the entire list.
2150	(866)	BITSTRING	1	IPALFLAG	LOADxx usage flags
Bit definitions:					
		1... ....		IPAJCLP	"X'80'" Master JCL came from PARMLIB
		.1.. ....		IPAUJCL	"X'40'" Use Master JCL IEFPARMs instead of LOADxx PARMLIBs
2151	(867)	CHARACTER	1	IPANUCXID	Nucleus extension ID
2152	(868)	CHARACTER	912	IPASYS	IEASYSxx section
2152	(868)	CHARACTER	8	IPAPDES	Parameter descriptor elements
2152	(868)	CHARACTER	912	IPAPDESC	Individual parameter descriptors
2152	(868)	CHARACTER	8	IPAALLOC	

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					PDE for ALLOC
2160	(870)	CHARACTER	8	IPAAPF	
					PDE for APF
2168	(878)	CHARACTER	8	IPAAPG	
					PDE for APG
2176	(880)	CHARACTER	8	IPABLDL	
					PDE for BLDL
2184	(888)	CHARACTER	8	IPABDLDF	
					PDE for BDLDF
2192	(890)	CHARACTER	8	IPACLOCK	
					PDE for CLOCK
2200	(898)	CHARACTER	8	IPACLPA	
					PDE for CLPA
2208	(8A0)	CHARACTER	8	IPACMB	
					PDE for CMB
2216	(8A8)	CHARACTER	8	IPACMD	
					PDE for CMD
2224	(8B0)	CHARACTER	8	IPACON	
					PDE for CON
2232	(8B8)	CHARACTER	8	IPACONT	
					PDE for CONT
2240	(8C0)	CHARACTER	8	IPACOUPL	
					PDE for COUPLE
2248	(8C8)	CHARACTER	8	IPACPQE	
					PDE for CPQE
2256	(8D0)	CHARACTER	8	IPACSA	
					PDE for CSA
2264	(8D8)	CHARACTER	8	IPACSCBL	
					PDE for CSCBLOC
2272	(8E0)	CHARACTER	8	IPACVIO	

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					PDE for CVIO
2280	(8E8)	CHARACTER	8	IPADEVSU	
					PDE for DEVSUP
2288	(8F0)	CHARACTER	8	IPADIAG	
					PDE for DIAG
2296	(8F8)	CHARACTER	8	IPADUMP	
					PDE for DUMP
2304	(900)	CHARACTER	8	IPADUPLE	
					PDE for DUPLEX
2312	(908)	CHARACTER	8	IPAEXIT	
					PDE for EXIT
2320	(910)	CHARACTER	8	IPAFIX	
					PDE for FIX
2328	(918)	CHARACTER	8	IPAGRS	
					PDE for GRS
2336	(920)	CHARACTER	8	IPAGRSCN	
					PDE for GRSCNF
2344	(928)	CHARACTER	8	IPAGRSRN	
					PDE for GRSRNL
2352	(930)	CHARACTER	8	IPAICS	
					PDE for ICS
2360	(938)	CHARACTER	8	IPAIOS	
					PDE for IOS
2368	(940)	CHARACTER	8	IPAIPS	
					PDE for IPS
2376	(948)	CHARACTER	8	IPALNK	
					PDE for LNK
2384	(950)	CHARACTER	8	IPALNKAU	
					PDE for LNKAUTH
2392	(958)	CHARACTER	8	IPALOGCL	

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					PDE for LOGCLS
2400	(960)	CHARACTER	8	IPALOGLM	
					PDE for LOGLMT
2408	(968)	CHARACTER	8	IPALOGRE	
					PDE for LOGREC
2416	(970)	CHARACTER	8	IPALPA	
					PDE for LPA
2424	(978)	CHARACTER	8	IPAMAXCA	
					PDE for MAXCAD
2432	(980)	CHARACTER	8	IPAMAXUS	
					PDE for MAXUSER
2440	(988)	CHARACTER	8	IPAMLPA	
					PDE for MLPA
2448	(990)	CHARACTER	8	IPAMSTRJ	
					PDE for MSTRJCL
2456	(998)	CHARACTER	8	IPANONVI	
					PDE for NONVIO
2464	(9A0)	CHARACTER	8	IPANSYSL	
					PDE for NSYSLX
2472	(9A8)	CHARACTER	8	IPANUCMA	
					PDE for NUCMAP
2480	(9B0)	CHARACTER	8	IPAOMVS	
					PDE for OMVS
2488	(9B8)	CHARACTER	8	IPAOPPI	
					PDE for OPI
2496	(9C0)	CHARACTER	8	IPAOPT	
					PDE for OPT
2504	(9C8)	CHARACTER	8	IPAPAGE0	
					PDE for PAGE (operator-specified)
2512	(9D0)	CHARACTER	8	IPAPAGEP	



Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
				PDE for PAGE (IEASYSxx-specified)	
2520	(9D8)	CHARACTER	8	IPAPAGNU	
				PDE for PAGNUM	
2528	(9E0)	CHARACTER	8	IPAPAGTO	
				PDE for PAGTOTL	
2536	(9E8)	CHARACTER	8	IPAPAK	
				PDE for PAK	
2544	(9F0)	CHARACTER	8	IPAPLEXC	
				PDE for PLEXCFG	
2552	(9F8)	CHARACTER	8	IPAPRODP	
				PDE for PRODP	
2560	(A00)	CHARACTER	8	IPAPROG	
				PDE for PROG	
2568	(A08)	CHARACTER	8	IPAPURGE	
				PDE for PURGE	
2576	(A10)	CHARACTER	8	IPARDE	
				PDE for RDE	
2584	(A18)	CHARACTER	8	IPAREAL	
				PDE for REAL	
2592	(A20)	CHARACTER	8	IPARER	
				PDE for RER	
2600	(A28)	CHARACTER	8	IPARSU	
				PDE for RSU	
2608	(A30)	CHARACTER	8	IPARSVNO	
				PDE for RSVNONR	
2616	(A38)	CHARACTER	8	IPARSVST	
				PDE for RSVSTRT	
2624	(A40)	CHARACTER	8	IPASCH	
				PDE for SCH	
2632	(A48)	CHARACTER	8	IPASMF	

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					PDE for SMF
2640	(A50)	CHARACTER	8	IPASMS	
					PDE for SMS
2648	(A58)	CHARACTER	8	IPASQA	
					PDE for SQA
2656	(A60)	CHARACTER	8	IPASSN	
					PDE for SSN
2664	(A68)	CHARACTER	8	IPASVC	
					PDE for SVC
2672	(A70)	CHARACTER	8	IPASWAP	
					PDE for SWAP
2680	(A78)	CHARACTER	8	IPASYSNA	
					PDE for SYSNAME
2688	(A80)	CHARACTER	8	IPASYSYP	
					PDE for SYSP
2696	(A88)	CHARACTER	8	IPAVAL	
					PDE for VAL
2704	(A90)	CHARACTER	8	IPAVIODS	
					PDE for VIODSN
2712	(A98)	CHARACTER	8	IPAVRREG	
					PDE for VRREGN
2720	(AA0)	CHARACTER	8	IPARTLSP	
					Support for RTLS has been withdrawn
2728	(AA8)	CHARACTER	8	IPAUNIP	
					PDE for UNI
2736	(AB0)	CHARACTER	8	IPAILML	
					Support for ILM has been withdrawn
2744	(AB8)	CHARACTER	8	IPAILMOD	
					Support for ILM has been withdrawn

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2752	(AC0)	CHARACTER	8	IPATSO	
PDE for IKJTSO					
2760	(AC8)	CHARACTER	8	IPALIC	
PDE for LICENSE 010409					
2768	(AD0)	CHARACTER	8		
2776	(AD8)	CHARACTER	8	IPAHVSHARE	PDE for VSHAR
2784	(AE0)	CHARACTER	8	IPAILM	
Support for ILM has been withdrawn					
2792	(AE8)	CHARACTER	8	IPADRMOD	
PDE for DRMODE					
2800	(AF0)	CHARACTER	8	IPACEE	
PDE for CEE					
2808	(AF8)	CHARACTER	8	IPAPRCPU	
PDE for PRESCPU					
2816	(B00)	CHARACTER	8	IPALFAREA	PDE for LFAREA
2824	(B08)	CHARACTER	8	IPACEA	
PDE for CEA					
2832	(B10)	CHARACTER	8	IPAHVCOMMON	PDE for VCOMM
2840	(B18)	CHARACTER	8	IPAAXR	
PDE for AXR					
2848	(B20)	CHARACTER	8	IPAZAAPZIIP	PDE for zAAPzIIP (ZZ)
2856	(B28)	CHARACTER	8	IPAIQP	
PDE for IQP					
2864	(B30)	CHARACTER	8	IPACPCR	
PDE for CPCR					
2872	(B38)	CHARACTER	8	IPADDM	
PDE for DDM					
2880	(B40)	CHARACTER	8	IPAAUTOR	
PDE for AUTOR					
2888	(B48)	CHARACTER	8	IPACATALOG	PDE for CATALOG
2896	(B50)	CHARACTER	8	IPAIXGCMF	PDE for IXGCMF
2904	(B58)	CHARACTER	8	IPAPAGESCM	PDE for PAGESCM
2912	(B60)	CHARACTER	8	IPAWARNUND	PDE for WARNUND

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2920	(B68)	CHARACTER	8	IPAHZS	
PDE for HZS					
2928	(B70)	CHARACTER	8	IPAGTZ	
PDE for GTZ					
2936	(B78)	CHARACTER	8	IPAHZSPROC	PDE for HZSPROC
2944	(B80)	CHARACTER	8	IPASMFLIM	PDE for SMFLIM
2952	(B88)	CHARACTER	8	IPAIEFOPZ	PDE for IEFOPZ
2960	(B90)	CHARACTER	8	IPARACF	
PDE for RACF					
2968	(B98)	CHARACTER	8	IPAFXE	
PDE for FXE					
2976	(BA0)	CHARACTER	8	IPAIZU	
PDE for IZU					
2984	(BA8)	CHARACTER	8	IPASMFTBUFF	PDE for SMFTBUFF
2992	(BB0)	CHARACTER	8	IPASOLUT	
PDE for SOLUT					
3000	(BB8)	CHARACTER	8	IPAOSPROTECT	PDE for OSPROTECT
3008	(BC0)	CHARACTER	8	IPAICSF	
PDE for ICSF					
3016	(BC8)	CHARACTER	8	IPAICSFPROC	PDE for ICSFPROC
3024	(BD0)	CHARACTER	8	IPARUCSA	
PDE for RUCSA					
3032	(BD8)	CHARACTER	8	IPABOOST	
PDE for BOOST					
3040	(BE0)	CHARACTER	8	IPACRYPCTRS	PDE for CRYPCTRS
3048	(BE8)	CHARACTER	8	IPARSM	
PDE for RSM					
3056	(BF0)	CHARACTER	8	IPAWORKINST	PDE for WORKINST
3064	(BF8)	CHARACTER	1	IPAPDESC_END(0)	
3064	(BF8)	CHARACTER	1	IPAEND(0)	End of IPA. The number of elements in IPAPDESC must be less than or equal to the dimension of IPAPDES.
?ASAXMAC ASSERT(Dim(IPAPDES) Length(IPAPDE),EQ,Length(IPAPDESC)) ?ASAXMAC ASSERT(Dim(IPAPDES) Length(IPAPDE),EQ,Length(IPAPDESC))					

Table 672. Structure IPA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
3064	(BF8)	X'0'	0	ASSERT_EQ1_1	"0"
3064	(BF8)	X'0'	0	ASSERT_EQ2_1	"0"
Constants for IPAHEAD					
3064	(BF8)	X'D7C140'	0	IPAIPA	"C'IPA '" Eye-catcher
3064	(BF8)	X'F1'	0	IPASPN	"241" IPA subpool
3064	(BF8)	X'1'	0	IPACVN	"1" IPA current version
Constants for IPAPROMT (the last three letters of the name indicate the effects of IPLing with that prompt value: the sixth letter indicates whether ("Y") or not ("N") the master catalog prompt is issued, the seventh letter indicates whether or not the system parameters prompt is issued, and the eighth letter indicates whether or not IPL messages are displayed)					
3064	(BF8)	X'C1'	0	IPAPRYYY	"C'A'"
3064	(BF8)	X'D7'	0	IPAPRYYN	"C'P'"
3064	(BF8)	X'D4'	0	IPAPRNYY	"C'M'"
3064	(BF8)	X'40'	0	IPAPRNNN	"C' '"
3064	(BF8)	X'C3'	0	IPAPRYNN	"C'C'"
3064	(BF8)	X'C4'	0	IPAPRYNY	"C'D'"
3064	(BF8)	X'E2'	0	IPAPRNYN	"C'S'"
3064	(BF8)	X'E3'	0	IPAPRNY Y	"C'T'"
3064	(BF8)	X'BF8'	0	IPA_LEN	"*-IPA"

Table 673. Structure IPAPDE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IPAPDE	Parameter descriptor element
0	(0)	ADDRESS	4	IPAPDESA	Address of parameter string (will be zero if the parameter was not specified and has no default value)
4	(4)	SIGNED	2	IPAPDESL	Length of parameter string, not including trailing null ('00'X) delimiter (will be zero if the parameter was not specified and has no default value)
6	(6)	SIGNED	2	IPAPDEDO	Source of parameter string (default value or from operator)
6	(6)	CHARACTER	2	IPAPDESS	Source of parameter string (IEASYSxx member)
Constants for IPAPDEDO					
6	(6)	X'0'	0	IPAPDEDF	"0" Parameter was not specified and its default value was used by system initialization
6	(6)	X'FFFFFF'	0	IPAPDEOP	"-1" Operator provided the parameter value
6	(6)	X'8'	0	IPAPDE_LEN	"*-IPAPDE"

Table 674. Structure IPAPLI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IPAPLI	Parmlib card image

Table 674. Structure IPAPLI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	44	IPAPLIDSN	PARMLIB dataset name
44	(2C)	CHARACTER	1		Reserved
45	(2D)	CHARACTER	6	IPAPLIVOL	PARMLIB VOLSER
51	(33)	CHARACTER	12		Reserved
63	(3F)	BITSTRING	1	IPAPLIFLG	PARMLIB usage flags
Bit definitions:					
		1... ....		IPAPLIUSE	"X'80'" PARMLIB in use
		.1.. ....		IPAPLIDEF	"X'40'" Default PARMLIB
		..1. ....		IPAPLICAT	"X'20'" IPAPLIVOL found from catalog
		.... 1...		IPAPLILCF	"X'08'" PARMLIB not used - LOCATE failed
		.... .1..		IPAPLIMNF	"X'04'" PARMLIB not used - MOUNT failed
		.... ..1.		IPAPLIOPF	"X'02'" PARMLIB not used - OPEN failed
64	(40)	X'40'	0	IPAPLI_LEN	"*-IPAPLI"

Table 675. Cross Reference for IHAIPA

Name	Offset	Hex	Tag
ASSERT_EQ1_1	BF8		0
ASSERT_EQ2_1	BF8		0
IPA	0		
IPA_LEN	BF8		BF8
IPAALLOC	868		
IPAAPF	870		
IPAAPG	878		
IPAARCHL	85F		
IPAAUTOR	B40		
IPAAXR	B18		
IPABLDL	880		
IPABLDLF	888		
IPABOOST	BD8		
IPACATALOG	B48		
IPACEA	B08		
IPACEE	AF0		
IPACLOCK	890		
IPACLPA	898		
IPACMB	8A0		
IPACMD	8A8		
IPACON	8B0		
IPACONT	8B8		

Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPACOUPL	8C0	
IPACPCR	B30	
IPACPQE	8C8	
IPACRYPCTRS	BE0	
IPACSA	8D0	
IPACSCBL	8D8	
IPACVIO	8E0	
IPACVN	BF8	1
IPADDM	B38	
IPADEVSU	8E8	
IPADIAG	8F0	
IPADRMOD	AE8	
IPADUMP	8F8	
IPADUPLE	900	
IPAEND	BF8	
IPAEXIT	908	
IPAFIX	910	
IPAFXE	B98	
IPAGRS	918	
IPAGRSCN	920	
IPAGRSRN	928	
IPAGTZ	B70	
IPAHEAD	0	
IPAHVCOMMON	B10	
IPAHVSHARE	AD8	
IPAHWNAM	18	
IPAHZS	B68	
IPAHZSPROC	B78	
IPAICS	930	
IPAICSF	BC0	
IPAICSFPROC	BC8	
IPAICTOD	8	
IPAID	0	
IPAIEFOPZ	B88	
IPAILM	AE0	
IPAILML	AB0	
IPAILMOD	AB8	
IPAILTOD	848	
IPAIOCFG	6C	

Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPAIODDS	78	
IPAIODF	60	
IPAIODFU	10	
IPAI0EDT	75	
IPAI0HLQ	63	
IPAI0S	938	
IPAI0SUF	60	
IPAIPA	BF8	D7C140
IPAIPS	940	
IPAIQP	B28	
IPAIXGCNF	B50	
IPAIZU	BA0	
IPAJCLP	866	80
IPALEN	4	
IPALFAREA	B00	
IPALFLAG	866	
IPALIC	AC8	
IPALNK	948	
IPALNKAU	950	
IPALOAD	60	
IPALLOADS	14	
IPALOGCL	958	
IPALOGLM	960	
IPALOGRE	968	
IPALPA	970	
IPALPARM	10	
IPALPDDV	5C	
IPALPDSN	30	
IPALPNAM	20	
IPAMACHMIGADDR	850	
IPAMAXCA	978	
IPAMAXUS	980	
IPAMLPA	988	
IPAMSTRJ	990	
IPAMTLSH	85E	
IPANAMES	18	
IPANLID	860	
IPANONVI	998	
IPANSYSL	9A0	



Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPANUCID	17	
IPANUCL	860	
IPANUCMA	9A8	
IPANUCW	862	
IPANUCXID	867	
IPANUMMACHMIGS	854	
IPANUMPDES	85C	
IPAOMVS	9B0	
IPAOPI	9B8	
IPAOPT	9C0	
IPAOSPROTECT	BB8	
IPAPAGE0	9C8	
IPAPAGEP	9D0	
IPAPAGESCM	B58	
IPAPAGNU	9D8	
IPAPAGTO	9E0	
IPAPAK	9E8	
IPAPDE	0	
IPAPDE_LEN	6	8
IPAPDEDF	6	0
IPAPDEDO	6	
IPAPDEOP	6	FFFFFF
IPAPDES	868	
IPAPDESA	0	
IPAPDESC	868	
IPAPDESC_END	BF8	
IPAPDESL	4	
IPAPDESS	6	
IPAPLCAT	1DF	20
IPAPLDEF	1DF	40
IPAPLDSN	1A0	
IPAPLEX	160	
IPAPLEXC	9F0	
IPAPLFLG	1DF	
IPAPLI	0	
IPAPLI_LEN	40	40
IPAPLIB	1A0	
IPAPLIB@	858	
IPAPLICAT	3F	20

Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPAPLIDF	3F	40
IPAPLIDSN	0	
IPAPLIFLG	3F	
IPAPLILCF	3F	8
IPAPLIMNF	3F	4
IPAPLIOPF	3F	2
IPAPLIUSE	3F	80
IPAPLIVOL	2D	
IPAPLLCF	1DF	8
IPAPLMNF	1DF	4
IPAPLNUM	864	
IPAPLNUMX	856	
IPAPLOPF	1DF	2
IPAPLUSE	1DF	80
IPAPLVOL	1CD	
IPAPRCPU	AF8	
IPAPRNNN	BF8	40
IPAPRNYY	BF8	D4
IPAPRNYN	BF8	E2
IPAPRNY	BF8	E3
IPAPRODP	9F8	
IPAPROG	A00	
IPAPROMT	16	
IPAPRYNN	BF8	C3
IPAPRYNY	BF8	C4
IPAPRYYN	BF8	D7
IPAPRYYY	BF8	C1
IPAPURGE	A08	
IPARACF	B90	
IPARDE	A10	
IPAREAL	A18	
IPARER	A20	
IPARSM	BE8	
IPARSU	A28	
IPARSVNO	A30	
IPARSVST	A38	
IPARTLSP	AA0	
IPARUCSA	BD0	
IPASCANL	E7	

Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPASCAT	E0	
IPASCCAS	E8	
IPASCDSN	EA	
IPASCH	A40	
IPASCHLQ	116	
IPASCTYP	E6	
IPASCVOL	E0	
IPASMF	A48	
IPASMFLIM	B80	
IPASMFTBUFF	BA8	
IPASMS	A50	
IPASOLUT	BB0	
IPASP	6	
IPASPARM	A0	
IPASPLST	A0	
IPASPN	BF8	F1
IPASPSUF	A0	
IPASQA	A58	
IPASSN	A60	
IPASTMT	6A0	
IPASTMTMM	5E0	
IPASVC	A68	
IPASWAP	A70	
IPASXNAM	160	
IPASXSCU	169	
IPASYLST	120	
IPASYM	120	
IPASYS	868	
IPASYSNA	A78	
IPASYSP	A80	
IPASYSUF	120	
IPATSO	AC0	
IPAUJCL	866	40
IPAUNIP	AA8	
IPAVAL	A88	
IPAVER	7	
IPAVIODS	A90	
IPAVMNAM	28	
IPAVRREG	A98	

Table 675. Cross Reference for IHAIPA (continued)

Name	Offset	Hex Tag
IPAWARNUND	B60	
IPAWORKINST	BF0	
IPAZAAPZIIP	B20	

## IHALCCAO information

### IHALCCAO heading information

<b>Common name:</b>	Logical Configuration Communication Area
<b>Macro ID:</b>	IHALCCAO
<b>DSECT name:</b>	LCCAO
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	LCCA Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 239 Key: 0
<b>Size:</b>	OFFSET OF LCCAOEND MINUS THE OFFSET OF LCCAO
<b>Created by:</b>	IEAVNIPO IEEVCPRP
<b>Pointed to by:</b>	PSALCCAV field of the PSA data area PSALCCAR field of the PSA data area LCCATxxP field of the LCCAVT data area (where xx is the processor number) LCCADCPU field of the LCCA data area (failing processor's LCCA) LCCARCPU field of the LCCA data area (recovering processor's LCCA)
<b>Serialization:</b>	Disablement
<b>Function:</b>	Contains processor related data.

### IHALCCAO mapping

Table 676. Structure LCCAO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	2632	LCCAO	
0	(0)	CHARACTER	4	LCCA0LCCAO	CONTROL BLOCK ACRONYM IN EBCDIC
4	(4)	ADDRESS	2	LCCA0CPUA	LOGICAL CPU ADDRESS
6	(6)	BITSTRING	2	LCCA0CAFM	BIT MASK CORRESPONDING TO LOGICAL CPU ADDRESS
8	(8)	SIGNED	4	LCCA0PGR1(16)	PROGRAM FLIH RECURSION REGISTER SAVE AREA 1
72	(48)	SIGNED	4	LCCA0PGR2(16)	PROGRAM FLIH MAIN ENTRY REGISTER SAVE AREA (MDC346)

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
136	(88)	CHARACTER	8	LCCAOPPSW	PROGRAM FLIH MAIN ENTRY PSW SAVE AREA
144	(90)	SIGNED	4	LCCAOPINT	PROGRAM FLIH MAIN ENTRY ILC AND INTERRUPT CODE SAVE AREA
144	(90)	CHARACTER	1	*	RESERVED - SET TO 0
145	(91)	BITSTRING	1	LCCAOPILC	INSTRUCTION LENGTH CODE
146	(92)	BITSTRING	1	LCCAOPEEC	EXCEPTION - EXTENSION CODE
147	(93)	BITSTRING	1	LCCAOPICD	PROGRAM INTERRUPT CODE
		1... ....		LCCAOPPER	PER BIT IN INTERRUPT CODE
		.111 1111		LCCAOPICA	The interrupt code without the PER bit
		.1.. ....		LCCAOPMC	Monitor call bit in interrupt code
		..11 1111		LCCAOPICB	The "clean" interrupt code
148	(94)	SIGNED	4	LCCAOPVAD	PROGRAM FLIH MAIN ENTRY TRANSLATION EXCEPTION ADDRESS SAVE AREA
148	(94)	CHARACTER	3	*	FIRST THREE BYTES OF ADDRESS
		1... ....		LCCAOPVXM	TEA MODE STATE. 0=PRIMARY 1=SECONDARY
151	(97)	UNSIGNED	1	LCCAOPDXC	Data exception code for PI 7
151	(97)	BITSTRING	1	LCCAOPSTD	LAST BYTE OF LCCAOPVAD
		1111 1...		*	
		.... .1..		LCCAOSOPI	Suppression-on-protection indicator
		.... ..11		LCCAOPSTF	STD FIELD - LAST TWO BITS OF LCCAOPVAD ..... .. '00' - PRIMARY STD USED .. '01' - STD WAS AR QUALIFIED .. '10' - SECONDARY STD USED .. '11' - HOME STD USED.
152	(98)	CHARACTER	3	*	Reserved
155	(9B)	UNSIGNED	1	LCCAOPICC	LCCAOPICD without PER. Should it be w/o MC?
156	(9C)	SIGNED	4	LCCAOCR0	WORK AREA FOR TESTING BITS IN CONTROL REGISTER 0
160	(A0)	SIGNED	4	LCCAOPGR3(16)	PROGRAM CHECK FLIH REGISTER SAVE AREA 3 (MDC317)
224	(E0)	CHARACTER	64	LCCAOPAR2	PROGRAM FLIH MAINLINE ACCESS REGISTER SAVEAREA 2
224	(E0)	UNSIGNED	4	LCCAOP2A0	ACCESS REGISTER 0
228	(E4)	UNSIGNED	4	LCCAOP2A1	ACCESS REGISTER 1
232	(E8)	UNSIGNED	4	LCCAOP2A2	ACCESS REGISTER 2
236	(EC)	UNSIGNED	4	LCCAOP2A3	ACCESS REGISTER 3
240	(F0)	UNSIGNED	4	LCCAOP2A4	ACCESS REGISTER 4
244	(F4)	UNSIGNED	4	LCCAOP2A5	ACCESS REGISTER 5
248	(F8)	UNSIGNED	4	LCCAOP2A6	ACCESS REGISTER 6
252	(FC)	UNSIGNED	4	LCCAOP2A7	ACCESS REGISTER 7
256	(100)	UNSIGNED	4	LCCAOP2A8	ACCESS REGISTER 8
260	(104)	UNSIGNED	4	LCCAOP2A9	ACCESS REGISTER 9
264	(108)	UNSIGNED	4	LCCAOP2AA	ACCESS REGISTER 10
268	(10C)	UNSIGNED	4	LCCAOP2AB	ACCESS REGISTER 11
272	(110)	UNSIGNED	4	LCCAOP2AC	ACCESS REGISTER 12
276	(114)	UNSIGNED	4	LCCAOP2AD	ACCESS REGISTER 13
280	(118)	UNSIGNED	4	LCCAOP2AE	ACCESS REGISTER 14
284	(11C)	UNSIGNED	4	LCCAOP2AF	ACCESS REGISTER 15

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
288	(120)	SIGNED	4	LCCAORSGR(16)	RESTART FLIH REGISTER SAVE AREA
352	(160)	ADDRESS	4	LCCA0DSA2	REAL ADDRESS OF THE DATA SPACE ASTE CAUSING THE FAULT.
356	(164)	CHARACTER	64	LCCA0PCR2	PROGRAM FLIH MAINLINE CONTROL REGISTER SAVEAREA 2
356	(164)	UNSIGNED	4	LCCA0P2C0	CONTROL REGISTER 0
360	(168)	UNSIGNED	4	LCCA0P2C1	CONTROL REGISTER 1
364	(16C)	UNSIGNED	4	LCCA0P2C2	DUCT ORIGIN ADDRESS (CR2)
368	(170)	CHARACTER	8	LCCA0PXM2	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 2 - MUST BE ON A DOUBLE WORD BOUNDARY.
368	(170)	UNSIGNED	4	LCCA0P2C3	CONTROL REGISTER 3
368	(170)	UNSIGNED	2	LCCA0PX2K	PROGRAM KEY MASK
370	(172)	UNSIGNED	2	LCCA0PX2S	SASN
372	(174)	UNSIGNED	4	LCCA0P2C4	CONTROL REGISTER 4
372	(174)	UNSIGNED	2	LCCA0PX2A	AX
374	(176)	UNSIGNED	2	LCCA0PX2P	PASN
376	(178)	UNSIGNED	4	LCCA0P2C5	ASTE REAL ADDRESS (CR5)
380	(17C)	UNSIGNED	4	LCCA0P2C6	CONTROL REGISTER 6
384	(180)	UNSIGNED	4	LCCA0P2C7	CONTROL REGISTER 7
388	(184)	UNSIGNED	4	LCCA0P2C8	CONTROL REGISTER 8
388	(184)	UNSIGNED	2	LCCA0PEX2	EAX VALUE (LH CR8)
390	(186)	UNSIGNED	2	*	SECOND HALF OF CR8
392	(188)	UNSIGNED	4	LCCA0P2C9	CONTROL REGISTER 9
396	(18C)	UNSIGNED	4	LCCA0P2CA	CONTROL REGISTER 10
400	(190)	UNSIGNED	4	LCCA0P2CB	CONTROL REGISTER 11
404	(194)	UNSIGNED	4	LCCA0P2CC	CONTROL REGISTER 12
408	(198)	UNSIGNED	4	LCCA0P2CD	CONTROL REGISTER 13
412	(19C)	UNSIGNED	4	LCCA0P2CE	CONTROL REGISTER 14
416	(1A0)	UNSIGNED	4	LCCA0P2CF	PROGRAM FLIH MAINLINE LINKAGE STACK ADDRESS (CR15)
420	(1A4)	CHARACTER	52	LCCA0R1A4	RESERVED
472	(1D8)	CHARACTER	8	LCCA0PSW3	PROGRAM FLIH PSW SAVE AREA 3 (MDC342)
480	(1E0)	SIGNED	4	LCCA0INGR(8)	INTERSECT REGISTER SAVE AREA (MDC325)
512	(200)	SIGNED	2	LCCA0BBCT	COUNT OF THE NUMBER OF TIMES BIND BREAK HAS ENABLED.
514	(202)	SIGNED	2	LCCA0WFCT	Bind Break Window Function Count - Incremented by code which opens an EMS window after it has completed its function
516	(204)	SIGNED	4	LCCA0MCR0	MACHINE CHECK FLIH CR0 SAVE AREA (MDC312)
	111. ....		*		FIRST THREE BITS OF LCCA0MCR0
	...1 ....			LCCA0MPEN	IF 0, PSA PROTECT DISABLED. IF 1, PSA PROTECT ENABLED. (MDC315)
520	(208)	CHARACTER	4	LCCA0IHRC	GENERAL FLIH RECURSION FLAGS
520	(208)	BITSTRING	1	LCCA0IHR1	FIRST BYTE OF LCCA0IHRC
	1... ....			LCCA0XRC1	EXTERNAL FLIH RECURSION BIT 1
	.1.. ....			LCCA0XRC2	EXTERNAL FLIH RECURSION BIT 2
	..11 1111		*		RESERVED

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
521	(209)	BITSTRING	1	LCCA0IHR2	SECOND BYTE OF LCCA0IHR
522	(20A)	BITSTRING	1	LCCA0IHR3	THIRD BYTE OF LCCA0IHR
523	(20B)	BITSTRING	1	LCCA0IHR4	FOURTH BYTE OF LCCA0IHR
524	(20C)	CHARACTER	4	LCCA0SPIN	PROCESSOR IS SPINNING INDICATORS
524	(20C)	BITSTRING	1	LCCA0SPN1	FIRST BYTE OF LCCA0SPIN
		1... ....		LCCA0SIGS	IEAVSIGP SPIN BIT
		.1.. ....		LCCA0ERIS	IEAVERI SPIN BIT
		..1. ....		LCCA0LOCK	LOCK MANAGER SPIN BIT
		...1 ....		LCCA0TSPN	SIMULATES SPIN FOR TIMER SUPERVISOR AT VARY TIME
		.... 1...		LCCA0RSTR	USED BY A PROGRAM SPINNING FOR THE RESTART RESOURCE MDC035
		.... .1..		*	RESERVED
		.... ..1.		LCCA0INT	INTERSECT FUNCTION SPIN BIT (MDC308)
		.... ...1		LCCA0EXSN	SPIN BIT FOR EXCESSIVE SPIN NOTIFICATION ROUTINE IEEVEXSN (MDC330)
525	(20D)	BITSTRING	1	LCCA0SPN2	SECOND BYTE OF LCCA0SPIN
		1... ....		LCCA0MSF	MSSFALL SVC SPIN CONDITION
		.1.. ....		LCCA0CHAP	ASCBCHAP SPIN BIT
		..1. ....		LCCA0CPUR	TIMER SPIN BIT
		...1 ....		LCCA0STAS	STATUS SPIN BIT
		.... 1...		LCCA0ESPN	IEAVESPN SPIN BIT
		.... .1..		LCCA0STST	CPU/VF STOP/START spin bit IEEVCVSR.
		.... ..1.		LCCA0XLS	XLS spin bit
526	(20E)	BITSTRING	1	LCCA0SPN3	THIRD BYTE OF LCCA0SPIN
527	(20F)	BITSTRING	1	LCCA0SPN4	FOURTH BYTE OF LCCA0SPIN
528	(210)	CHARACTER	8	*	OWNERSHIP: SUPERVISOR SERIALIZATION: NONE
528	(210)	UNSIGNED	4	LCCA0TODH	STCK WORK AREA - HIGH ORDER WORD
532	(214)	UNSIGNED	4	LCCA0TODL	STCK WORK AREA - LOW ORDER WORD
536	(218)	ADDRESS	4	LCCA0CPUS	POINTER TO CPU WORK/SAVE AREA VECTOR TABLE
540	(21C)	BITSTRING	1	LCCA0DSF1	DISPATCHER STATUS INDICATOR BYTE 1 SPECIAL EXIT FLAGS
		1... ....		LCCA0ACR	ACR IN PROGRESS
		.1.. ....		LCCA0VCPU	VARY CPU IN PROGRESS
		..1. ....		LCCA0ETSC	TOD SYNC CHECKS SHOULD BE ENABLED
		...1 ....		LCCA0TIMR	CPU'S TOD CLOCK IS TO BE OR IS BEING SYNCHRONIZED MDC011
		.... 1...		LCCA0TSMC	TOD SYNC CHECK THRESHOLD HAS BEEN EXCEEDED
		.... .1..		LCCA0SVC6	Dispatcher entry DSSRBRTN was spinning for the global intersect.
		.... ..1.		LCCA0TCT2	Dispatcher entry IEAVDSTC was spinning for the global intersect.
		.... ...1		*	RESERVED
541	(21D)	BITSTRING	1	LCCA0DSF2	DISPATCHER STATUS INDICATOR BYTE 2 SPECIAL EXIT FLAGS
		1... ....		LCCA0SRBM	SRB MODE INDICATOR

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		*	
		..1. ....		LCCA0SSRB	DISPATCHER SSRB PATH FOOTPRINT
		...1 ....		LCCA0EUTS	EUTSAVE SUBROUTINE FOOTPRINT
		.... 1...		LCCA0EUTR	EUTREST SUBROUTINE FOOTPRINT
		.... .1..		LCCA0TVS	Dispatcher footprint for XES Schedule List Transition Notification
		.... ..1.		LCCA0DS7E	Dispatcher footprint on entry from external or i/o flih.
		.... ...1		LCCA0TVS2	Dispatcher footprint for iQDIO notification.
542	(21E)	CHARACTER	1	LCCA0PSMK	STORE AREA FOR FLIH'S STOSM INSTRUCTION
543	(21F)	BITSTRING	1	LCCA0SCFL	Supervisor Control flag byte. Current processor's field serialized via disablement.
		1... ....		LCCA0CRYP	THE ENCRYPTION FEATURE IS ENABLED ON THIS PROCESSOR (SET BY IEAMCPUF SERVICE).
		.1.. ....		LCCA0HSCS	HPPI external interrupts are enabled on this processor (set by IEAMCPUF service).
		..1. ....		LCCA0PASS	Pass ABEND to interrupted unit of work indicator
		...1 ....		LCCA0TVSE	External FLIH footprint for XES processing in progress.
		.... 1...		LCCA0AOLS	Set when PSAAOLD was refreshed and IEAVELCR needs to record the old value in the VRA. The old value is saved in LCCA0AOLD.
		.... .1..		LCCA0TOLS	Set when PSATOLD was refreshed and IEAVELCR needs to record the old value in the VRA. The old value is saved in LCCA0TOLD.
		.... ..1.		LCCA0TVS3	External FLIH footprint for iQDIO processing in progress.
		.... ...1		*	RESERVED
544	(220)	CHARACTER	32	LCCA0DS0W	DISPATCHER CPU RELATED WORK AREA
544	(220)	ADDRESS	4	LCCA0PWEB	Dispatcher Savearea for previous current WUQ. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
548	(224)	SIGNED	4	LCCA0DBCT	DISPATCHER SAVEAREA FOR INTERNAL ASCB COUNTER. INITIALIZED TO SVTDSBCT AND DECREMENTED BY ONE FOR EACH ASCB SEARCHED.
		1... ....		LCCA0RSWS	Turned on whenever the dispatcher is entered as a result of a successful Transfer request. Turned off by the dispatcher when a successful work search is completed.
552	(228)	ADDRESS	4	LCCA0DSV1	DISPATCHER SAVEAREA
556	(22C)	ADDRESS	4	LCCA0DSV2	DISPATCHER SAVEAREA
560	(230)	ADDRESS	4	LCCA0DSV3	DISPATCHER SAVEAREA
564	(234)	ADDRESS	4	LCCA0DSV4	DISPATCHER SAVEAREA
568	(238)	ADDRESS	4	LCCA0DSV5	DISPATCHER SAVEAREA
572	(23C)	ADDRESS	4	LCCA0DSV6	DISPATCHER SAVEAREA
576	(240)	ADDRESS	4	LCCA0EE1R	EXTERNAL FLIH MAINLINE RETRY ADDRESS



Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
580	(244)	ADDRESS	4	LCCA0EE2R	EXTERNAL FLIH 1ST RECURSION RETRY ADDRESS
584	(248)	ADDRESS	4	LCCA0EE3R	EXTERNAL FLIH 2ND RECURSION RETRY ADDRESS
588	(24C)	UNSIGNED	1	LCCA0PTR1	PROGRAM FLIH RECURSION TEA AR NUMBER SAVEAREA 1
589	(24D)	UNSIGNED	1	LCCA0PTR2	PROGRAM FLIH MAINLINE TEA AR NUMBER SAVEAREA 2
590	(24E)	UNSIGNED	1	LCCA0PTR3	PROGRAM FLIH RECURSION TEA MC AR NUMBER SAVEAREA 3
591	(24F)	UNSIGNED	1	LCCA0PPR2	MAINLINE PER STORAGE ALTERATION AR NUMBER
592	(250)	SIGNED	4	LCCA0TCR0	SAVE AREA FOR CONTROL REGISTER 0 FOR TIMER ROUTINES (MDC322)
596	(254)	SIGNED	4	LCCA0WTD	AWM wait dispatch count
600	(258)	SIGNED	4	LCCA0WSD	AWM short wait dispatch count
604	(25C)	SIGNED	4	LCCA0WSU	Unproductive short wait dispatch count
608	(260)	SIGNED	4	LCCA0WS	Short wait time slice count
612	(264)	UNSIGNED	4	*	
612	(264)	UNSIGNED	1	LCCA0STCT	The count of sequential transfers on this processor
613	(265)	UNSIGNED	3	LCCA0R265	RESERVED
616	(268)	CHARACTER	8	LCCA0WTIM	ACCUMULATED CPU WAIT TIME
624	(270)	CHARACTER	28	LCCA0R270	RESERVED
652	(28C)	ADDRESS	4	LCCA0LCCX	Virtual address of LCCX.
652	(28C)	ADDRESS	4	LCCA0FPWA	Virtual address of FPWA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
656	(290)	ADDRESS	4	LCCA0LCXR	Real address of LCCX.
656	(290)	ADDRESS	4	LCCA0FPWR	Real address of FPWA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
660	(294)	ADDRESS	4	LCCA0ESAV	Virtual address of area pointed to by FLCESAA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
664	(298)	ADDRESS	4	LCCA0AOLD	If LCCA0A0LS = 1, PSAAOLD was refreshed and the original value of PSAAOLD is saved in this field, so it can be recorded in the VRA.
668	(29C)	ADDRESS	4	LCCA0TOLD	If LCCA0T0LS = 1, PSATOLD was refreshed and the original value of PSATOLD is saved in this field, so it can be recorded in the VRA.
672	(2A0)	SIGNED	4	LCCA0SRBJ	SUSPENDED SERVICE REQUEST BLOCK (SRB) JOURNAL WORD USED BY SETLOCK MDC043
676	(2A4)	ADDRESS	4	LCCA0DCPU	VIRTUAL ADDRESS OF LCCAO OF FAILING CPU
680	(2A8)	ADDRESS	4	LCCA0RCPU	VIRTUAL ADDRESS OF LCCAO OF RECOVERING CPU
684	(2AC)	SIGNED	4	LCCA0CRLC	ACR SAVE AREA FOR HIGHEST LOCK HELD INDICATOR
688	(2B0)	SIGNED	4	LCCA0LCR0	SAVE AREA FOR CONTROL REGISTER 0 WHEN OPENING A WINDOW
692	(2B4)	BITSTRING	1	LCCA0CRFL	ACR FLAGS

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ..		LCCAOCRTM	RTM ENTRY BIT
		.1.. ..		LCCAOCCLMS	PROCESS SUSPENDED
		..11 111.		*	RESERVED
		.... ...1		LCCAOVARY	TELLS ACR THAT VARY IS IN PROGRESS MDC038
693	(2B5)	BITSTRING	1	LCCAOCREX	ACR ENTRY AND EXIT FLAGS
		1... ..		LCCAOCREF	EXTERNAL ROUTINE
		.1.. ..		LCCAOCRRM	FINAL EXIT
		..1. ....		LCCAOCRLE	LOCK MANAGER EXIT
		...1 ....		LCCAOCRRT	FRR EXIT
		.... 1...		LCCAOCRIN	ENTRY TYPE = ACR
		.... .1..		LCCAOCRML	ENTRY TYPE = ACRLM
		.... ..1.		LCCAOCRDP	ENTRY TYPE = ACRDISP
		.... ...1		LCCAOCRST	SYSTEM TERMINATION EXIT FLAG MDC037
694	(2B6)	BITSTRING	1	LCCAOLKFG	LOCK FLAG BYTE MDC005
		111. ....		*	RESERVED
		...1 ....		LCCAOLKRD	THIS IS A LOCK MANAGER RELEASE DISABLED REQUEST MDC047
		.... 1111		*	RESERVED
695	(2B7)	CHARACTER	1	*	RESERVED
696	(2B8)	CHARACTER	4	LCCAOSLEB	SPIN LOOP EXEMPTION BITS
696	(2B8)	BITSTRING	1	LCCAOSLE1	FLAG BYTE OWNERSHIP: RECONFIG SERIALIZATION: CS
		1... ..		LCCAOSTCP	BLWSPIN IN CONTROL.
		.1.. ..		LCCAORSTP	LOADWAIT/RESTART PROCESSING IS PLACING THIS PROCESSOR INTO A RESTARTABLE WAIT STATE.
		..1. ....		LCCAQVTD	IEATVTD IN CONTROL.
		...1 ....		LCCAQESMR	IEATESMR IN CONTROL.
		.... 1...		LCCAQXMF	IGFPXMFA HAS STOPPED THIS CPU.
		.... .1..		LCCAQCVSR	IEEVCVSR IN CONTROL.
		.... ..1.		LCCAQBRCH	ISNBRNCH IN CONTROL.
		.... ...1		LCCAQBWTO	IEAVBWTO IN CONTROL.
697	(2B9)	BITSTRING	1	LCCAOSLE2	FLAG BYTE 2
		1... ..		LCCAQESC2	IEATESCH or IEATTFDH in control. OWNERSHIP: RECONFIG. SERIALIZATION: CS.
		.1.. ..		LCCAQXLS	XLS is in control. Ownership: XES. Serialization: Disablement.
		..11 1111		*	RESERVED
698	(2BA)	CHARACTER	2	*	RESERVED
700	(2BC)	ADDRESS	4	LCCAOSLIP	POINTER TO SLIP/PER WORK AREA (MDC316)
704	(2C0)	CHARACTER	8	LCCAOLWTM	VALUE OF LCCAOWTIM AT THE END OF A MEASUREMENT INTERVAL MDC001
712	(2C8)	ADDRESS	4	LCCAOSA2	REAL ADDRESS OF SUBSPACE ASTE CAUSING THE FAULT. OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
716	(2CC)	ADDRESS	4	LCCA0SSA5	REAL ADDRESS OF SUBSPACE ASTE CAUSING THE RECURSIVE FAULT. OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
720	(2D0)	CHARACTER	8	LCCA0SRBF	SRB FIELDS MDC009
720	(2D0)	SIGNED	2	LCCA0SAFN	CPU AFFINITY IF IN SRB MODE MDC003
722	(2D2)	CHARACTER	6	LCCA0PGTA	ASID/TCB IF IN SRB MODE MDC004
728	(2D8)	ADDRESS	4	LCCA00RMT	OLD SRB RMTR VALUE SERIALIZATION: DISABLEMENT OWNERSHIP: SUPERVISOR CONTROL
		1... ....		LCCA0SSTD	SRB SUSPEND WITH TOKEN DISABLED BIT
		.1.. ....		LCCA0SSTA	SRB SUSPEND WITH TOKEN DISABLED BECAUSE SRB WAS ABENDED BY PURGEDQ PROCESSING.
		..1. ....		LCCA0SSTE	SRB SUSPEND WITH TOKEN DISABLED BECAUSE SRB IS REALLY A SUSPEND EXIT.
732	(2DC)	CHARACTER	4	LCCA0R2DC	RESERVED
736	(2E0)	ADDRESS	4	LCCA0IOWA	ADDRESS OF IOS WORKAREA (MDCXXX)@G860PVB
740	(2E4)	SIGNED	4	LCCA0IOR1	RESERVED FOR IOS (MDCXXX)
744	(2E8)	SIGNED	4	LCCA0IOR2	RESERVED FOR IOS (MDCXXX)
748	(2EC)	SIGNED	4	LCCA0IOR3	RESERVED FOR IOS (MDCXXX)
752	(2F0)	SIGNED	4	LCCA0R2F0	RESERVED
756	(2F4)	CHARACTER	64	LCCA0PCR1	PROGRAM FLIH RECURSION CONTROL REGISTER SAVEAREA 1
756	(2F4)	UNSIGNED	4	LCCA0P1C0	CONTROL REGISTER 0
760	(2F8)	UNSIGNED	4	LCCA0P1C1	CONTROL REGISTER 1
764	(2FC)	UNSIGNED	4	LCCA0P1C2	DUCT ORIGIN ADDRESS (CR2)
768	(300)	CHARACTER	8	LCCA0PXM1	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 1 - MUST BE ON A DOUBLE WORD BOUNDARY.
768	(300)	UNSIGNED	4	LCCA0P1C3	CONTROL REGISTER 3
768	(300)	UNSIGNED	2	LCCA0PX1K	PROGRAM KEY MASK
770	(302)	UNSIGNED	2	LCCA0PX1S	SASN
772	(304)	UNSIGNED	4	LCCA0P1C4	CONTROL REGISTER 4
772	(304)	UNSIGNED	2	LCCA0PX1A	AX
774	(306)	UNSIGNED	2	LCCA0PX1P	PASN
776	(308)	UNSIGNED	4	LCCA0P1C5	ASTE REAL ADDRESS (CR5)
780	(30C)	UNSIGNED	4	LCCA0P1C6	CONTROL REGISTER 6
784	(310)	UNSIGNED	4	LCCA0P1C7	CONTROL REGISTER 7
788	(314)	UNSIGNED	4	LCCA0P1C8	CONTROL REGISTER 8
788	(314)	UNSIGNED	2	LCCA0PEX1	EAX VALUE (LH CR8)
790	(316)	UNSIGNED	2	*	SECOND HALF OF CR8
792	(318)	UNSIGNED	4	LCCA0P1C9	CONTROL REGISTER 9
796	(31C)	UNSIGNED	4	LCCA0P1CA	CONTROL REGISTER 10
800	(320)	UNSIGNED	4	LCCA0P1CB	CONTROL REGISTER 11
804	(324)	UNSIGNED	4	LCCA0P1CC	CONTROL REGISTER 12
808	(328)	UNSIGNED	4	LCCA0P1CD	CONTROL REGISTER 13
812	(32C)	UNSIGNED	4	LCCA0P1CE	CONTROL REGISTER 14
816	(330)	UNSIGNED	4	LCCA0P1CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 1 (CR15)

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
820	(334)	UNSIGNED	1	LCCAOWDT(16)	WEB Distribution table. 16 one- byte elements. INITIALIZED BY: IEAVINIT SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
836	(344)	ADDRESS	4	LCCAOCWEB	Address of current workunit's WEB Address. SERIALIZATION: Disablement. Global Intersect required to change another processor's LCCAOCWEB field OWNERSHIP: Supervisor Control
840	(348)	ADDRESS	4	LCCAONWEB	Address of the next WEB to be dispatched on the current CPU. SERIALIZATION: Compare and Swap OWNERSHIP: Supervisor Control
844	(34C)	SIGNED	2	LCCAOWUQI	Dispatcher's current index into the WUQ Array (LCCAOWUQA), used during Dispatcher Work Search. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
846	(34E)	UNSIGNED	2	LCCAOWUQR	Dispatcher work queue rescans remaining count.
848	(350)	ADDRESS	4	LCCAOWUQM	Address of this processor's PWUQ. SERIALIZATION: Global Intersect OWNERSHIP: Supervisor Control
852	(354)	CHARACTER	8	LCCAOWFP	Processor Free WEB Pool and count. SERIALIZATION: Disablement for current processor's LCCAOWFP OWNERSHIP: Supervisor Control
852	(354)	ADDRESS	4	LCCAOWFP	Processor WEB Free Pool Header. SERIALIZATION: Disablement for current processor's LCCAOWFP. OWNERSHIP: Supervisor Control
856	(358)	SIGNED	4	LCCAOWFPC	Processor WEB Free Pool element count. SERIALIZATION: Disablement for current processor's LCCAOWFPC. OWNERSHIP: Supervisor Control
860	(35C)	CHARACTER	4	LCCAOR35C	Reserved
864	(360)	SIGNED	4	LCCAOSMQJ	GLOBAL SERVICE MANAGER QUEUE (GSMQ) AND LOCAL SERVICE MANAGER QUEUE (LSMQ) JOURNAL WORD USED BY DISPATCHER AND SCHEDULE MDC044
868	(364)	SIGNED	4	LCCAOSPLJ	GLOBAL SYSTEM PRIORITY LIST (GSPL) AND LOCAL SYSTEM PRIORITY LIST (LSPL) JOURNAL WORD USED BY DISPATCHER MDC045
872	(368)	CHARACTER	4	LCCA0ETP	Unproductive task preemptions count due to timeslices (External Flieh Detected).
876	(36C)	CHARACTER	4	LCCA0ETPB	Unproductive task preemptions count Base. Previous value of LCCA0ETP
880	(370)	CHARACTER	12	LCCAOR370	RESERVED
892	(37C)	ADDRESS	4	LCCAORWQL	Recovery word for WebQLock address. Ownership: Supervisor Control Serialization: Disablement
896	(380)	SIGNED	4	LCCAOSGPR(16)	SVC FLIH GENERAL REGISTER SAVE AREA (MDC301)
960	(3C0)	CHARACTER	1	LCCA0DS0F	DISPATCHER DIAGNOSTIC EXIT FLAG BYTE
	1... ....			LCCA0DSE1	DISPATCHER UNLOCKED TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
	.1.. ....			LCCA0DSE2	DISPATCHER LOCKED TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
	..1. ....			LCCA0DSE3	DISPATCHER SRB DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		LCCA0DSE4	DISPATCHER SSRB DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
		.... 1...		LCCA0DSE5	DISPATCHER WAIT TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
961	(3C1)	BITSTRING	1	LCCA0FPFL	FP Flags
		111. ....		*	Reserved
		...1 ....		LCCA0BFP	Additional FP status is being saved.
		.... 111.		*	Reserved
		.... ...1		LCCA0BFPH	BFP hardware is present. This bit is a duplicate of CVTBFPH so that dat- off reference can be made. It is set only at IPL and when a processor is brought online
962	(3C2)	CHARACTER	2	LCCA0PERC	PROGRAM EVENT RECORDING CODE (MDC326)
964	(3C4)	ADDRESS	4	LCCA0PERA	PER ADDRESS (MDC327)
968	(3C8)	ADDRESS	4	LCCA0SDUV	SRB RELATED DUCT VIRTUAL ADDRESS
972	(3CC)	ADDRESS	4	LCCA0SDUR	SRB RELATED DUCT REAL ADDRESS
976	(3D0)	ADDRESS	4	LCCA0IDUV	INTERRUPT HANDLER DUCT VIRTUAL ADDRESS
980	(3D4)	ADDRESS	4	LCCA0IDUR	INTERRUPT HANDLER DUCT REAL ADDRESS
984	(3D8)	ADDRESS	4	LCCA0SCW1	SUPERVISOR CONTROL WORK AREA 1 USED BY VARIOUS SUPERVISOR ROUTINES PRESERVED ACROSS CALLS TO IEAVECMS OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
988	(3DC)	ADDRESS	4	LCCA0SCW2	SUPERVISOR CONTROL WORK AREA 2 USED BY VARIOUS SUPERVISOR ROUTINES PRESERVED ACROSS CALLS TO IEAVECMS OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
992	(3E0)	CHARACTER	8	LCCA0SXMR	SVC FLIH CROSS MEMORY CONTROL REGISTER SAVE AREA (MDC338)
1000	(3E8)	CHARACTER	72	LCCA0LK61	LOCK MANAGER REGISTER SAVE AREA (MDC338)
1072	(430)	CHARACTER	64	LCCA0LK62	LOCK MANAGER SUSPENSION REGISTER SAVE AREA (MDC338)
1136	(470)	CHARACTER	8	LCCA0ELKP	LOCK MANAGER PSW SAVE AREA (MDC338)
1144	(478)	CHARACTER	72	LCCA0STG1	STATUS REGISTER SAVE AREA (MDC338)
1216	(4C0)	CHARACTER	20	LCCA0SCSA	PCLINK SAVE AREA FOR REGISTERS 8-12 (CALLER'S REGISTERS) (MDC341)
1236	(4D4)	CHARACTER	52	LCCA0SREG	PCLINK REGISTER SAVE AREA (MDC341)
1288	(508)	CHARACTER	1	LCCA0SMSK	PCLINK SYSTEM MASK (MDC341)
1289	(509)	CHARACTER	1	LCCA0RSMK	RESUME TCTL SYSTEM MASK (MDC340)
1290	(50A)	CHARACTER	1	LCCA0PGMM	PCLINK PROGRAM MASK (MDC341)
1291	(50B)	BITSTRING	1	LCCA0TCFB	RESUME/TCTL RECOVERY FOOTPRINT BYTE (MDC346)
		1... ....		LCCA0TCTL	TCTL IN CONTROL AT ABEND (MDC346)
		.1... ....		LCCA0TCAC	TCBACTIV AND TCBS3A SET (MDC346)
1292	(50C)	CHARACTER	40	LCCA0RSME	RESUME REGISTER SAVE AREA FOR REGISTERS 11-4 (MDC338)
1292	(50C)	CHARACTER	28	LCCA0RES1	RESUME REGISTER SAVE AREA REG 11-REG 1 (MDC338)
1320	(528)	CHARACTER	12	LCCA0RES2	RESUME REGISTER SAVE AREA REG 2 - REG 4 (MDC338)

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1332	(534)	CHARACTER	4	LCCAOSPSW	SYSTEM MASK SAVE AREA, USED BY MACHINE CHECK HANDLER
1336	(538)	ADDRESS	4	LCCAOSRGS	RETURN ADDRESS SAVE AREA, USED BY MACHINE CHECK HANDLER
1340	(53C)	ADDRESS	4	LCCAOPRMW	Address of the WEB on whose behalf a priority promotion was initiaed. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
1344	(540)	ADDRESS	4	LCCAOPTCB	ADDRESS OF THE TCB ON WHOSE BEHALF A PRIORITY PROMOTION WAS INITIATED. (MDC347)
1348	(544)	ADDRESS	4	LCCAOPRTN	DISPATCHER RETURN POINT IF NO DISPATCHABLE WORK IS FOUND IN A PROMOTED ADDRESS SPACE. (MDC347)
1352	(548)	CHARACTER	8	LCCAOCDXM	CALLDISP XMEM SAVE AREA (MDC338)
1360	(550)	CHARACTER	8	LCCAOSRXM	CROSS MEMORY SAVE AREA FOR STOP/RESET AND SRB STATUS SAVE/RESTORE/MODIFY ROUTINES.
1360	(550)	SIGNED	4	LCCAOSRSA	STOP/RESET IAC SAVE AREA.
1364	(554)	SIGNED	4	LCCAOSRTK	HOLDS SSARTO TOKEN FOR STOP/RESET.
1368	(558)	SIGNED	4	LCCAOCR8W	WORK AREA FOR CTL REG 8
1372	(55C)	CHARACTER	12	LCCAIOIXM	IOS CROSS MEMORY SAVE AREA (MDC339)
1372	(55C)	SIGNED	4	LCCAIOISS	IOS PSW S-BIT REGISTER SAVE AREA (MDC339)
1376	(560)	SIGNED	4	LCCAIOIC3	IOS CONTROL REGISTER 3 SAVE AREA (MDC339)
1380	(564)	SIGNED	4	LCCAIOIC4	IOS CONTROL REGISTER 4 SAVE AREA (MDC339)
1384	(568)	SIGNED	4	LCCA0BBRC	BIND BREAK COMMUNICATION BUFFER USED BY IEAVEBBR (MDC344)
1388	(56C)	CHARACTER	64	LCCAOCDSV	CALLDISP SERVICE ROUTINE REGISTER SAVE AREA FOR REGISTERS 0-15 (MDC344)
1388	(56C)	CHARACTER	4	LCCAOCDS0	CALLDISP REGISTER 0 SAVE AREA (MDC344)
1392	(570)	CHARACTER	4	LCCAOCDS1	CALLDISP REGISTER 1 SAVE AREA (MDC344)
1396	(574)	CHARACTER	4	LCCAOCDS2	CALLDISP REGISTER 2 SAVE AREA (MDC344)
1400	(578)	CHARACTER	4	LCCAOCDS3	CALLDISP REGISTER 3 SAVE AREA (MDC344)
1404	(57C)	CHARACTER	4	LCCAOCDS4	CALLDISP REGISTER 4 SAVE AREA (MDC344)
1408	(580)	CHARACTER	4	LCCAOCDS5	CALLDISP REGISTER 5 SAVE AREA (MDC344)
1412	(584)	CHARACTER	4	LCCAOCDS6	CALLDISP REGISTER 6 SAVE AREA (MDC344)
1416	(588)	CHARACTER	4	LCCAOCDS7	CALLDISP REGISTER 7 SAVE AREA (MDC344)
1420	(58C)	CHARACTER	4	LCCAOCDS8	CALLDISP REGISTER 8 SAVE AREA (MDC344)
1424	(590)	CHARACTER	4	LCCAOCDS9	CALLDISP REGISTER 9 SAVE AREA (MDC344)
1428	(594)	CHARACTER	4	LCCAOCDSA	CALLDISP REGISTER 10 SAVE AREA (MDC344)
1432	(598)	CHARACTER	4	LCCAOCDSB	CALLDISP REGISTER 11 SAVE AREA (MDC344)

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1436	(59C)	CHARACTER	4	LCCAOCDS	CALLDISP REGISTER 12 SAVE AREA (MDC344)
1440	(5A0)	CHARACTER	4	LCCAOCDS	CALLDISP REGISTER 13 SAVE AREA (MDC344)
1444	(5A4)	CHARACTER	4	LCCAOCDS	CALLDISP REGISTER 14 SAVE AREA (MDC344)
1448	(5A8)	CHARACTER	4	LCCAOCDS	CALLDISP REGISTER 15 SAVE AREA (MDC344)
1452	(5AC)	CHARACTER	64	LCCAOSLSA	LCCAO SINGLE LEVEL SAVE AREA USED BY MACHINE CHECK HANDLER (MDC344)
1516	(5EC)	ADDRESS	4	LCCAORWEB	Address of WEB expected to be locked by this CPU on entry to global recovery
	1... ....			LCCAORWLK	Indicator that WEB in LCCAORWEB is not validly locked but the AWQ lock for the WEB can be held by this CPU
1520	(5F0)	CHARACTER	40	LCCAOPST	POST SAVE AREA FOR SRB POOL MANAGER
1560	(618)	ADDRESS	4	LCCA0ALOV	SRB RELATED AL VIRTUAL ADDRESS OR ZERO (ZERO MEANS THE NULL OR BASIC ACCESS LIST)
1564	(61C)	ADDRESS	4	LCCAOPSB2	ASCB ADDRESS WHERE PAGE/SEGMENT FAULT OCCURRED
1568	(620)	ADDRESS	4	LCCA0LSSD	LSSD ADDRESS FOR THE PROCESSOR RELATED SRB LINKAGE STACK
1572	(624)	ADDRESS	4	LCCA0LSDP	ADDRESS OF THE FIRST LSED IN THE PROCESSOR RELATED SRB LINKAGE STACK
1576	(628)	CHARACTER	8	LCCA0XTIM	EXTERNAL FLIH TIMER SAVE AREA
1584	(630)	CHARACTER	64	LCCA0PAR3	PROGRAM FLIH RECURSION MC ACCESS REGISTER SAVEAREA 3
1584	(630)	UNSIGNED	4	LCCA0P3A0	ACCESS REGISTER 0
1588	(634)	UNSIGNED	4	LCCA0P3A1	ACCESS REGISTER 1
1592	(638)	UNSIGNED	4	LCCA0P3A2	ACCESS REGISTER 2
1596	(63C)	UNSIGNED	4	LCCA0P3A3	ACCESS REGISTER 3
1600	(640)	UNSIGNED	4	LCCA0P3A4	ACCESS REGISTER 4
1604	(644)	UNSIGNED	4	LCCA0P3A5	ACCESS REGISTER 5
1608	(648)	UNSIGNED	4	LCCA0P3A6	ACCESS REGISTER 6
1612	(64C)	UNSIGNED	4	LCCA0P3A7	ACCESS REGISTER 7
1616	(650)	UNSIGNED	4	LCCA0P3A8	ACCESS REGISTER 8
1620	(654)	UNSIGNED	4	LCCA0P3A9	ACCESS REGISTER 9
1624	(658)	UNSIGNED	4	LCCA0P3AA	ACCESS REGISTER 10
1628	(65C)	UNSIGNED	4	LCCA0P3AB	ACCESS REGISTER 11
1632	(660)	UNSIGNED	4	LCCA0P3AC	ACCESS REGISTER 12
1636	(664)	UNSIGNED	4	LCCA0P3AD	ACCESS REGISTER 13
1640	(668)	UNSIGNED	4	LCCA0P3AE	ACCESS REGISTER 14
1644	(66C)	UNSIGNED	4	LCCA0P3AF	ACCESS REGISTER 15
1648	(670)	CHARACTER	64	LCCA0EMS0	IEAVWUQA REGISTER SAVE AREA
1712	(6B0)	CHARACTER	8	LCCA0PPS1	PROGRAM FLIH RECURSION PSW SAVE AREA 1
1720	(6B8)	CHARACTER	4	LCCA0PIC1	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 1
1724	(6BC)	CHARACTER	4	LCCA0PTE1	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 1
1728	(6C0)	CHARACTER	64	LCCA0PGR4	PROGRAM FLIH REGISTER SAVE AREA 4

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1792	(700)	CHARACTER	72	LCCAOPSLI	PROGRAM FLIH SAVE AREA TO PASS TO SLIH ROUTINES
1864	(748)	ADDRESS	4	LCCAOLSHD	LSSD ADDRESS FOR THE INTERRUPT HANDLER LINKAGE STACK
1868	(74C)	ADDRESS	4	LCCAOLSHP	ADDRESS OF THE FIRST LSED IN THE INTERRUPT HANDLER LINKAGE STACK
1872	(750)	CHARACTER	8	LCCAOPPS3	PROGRAM FLIH RECURSION PSW SAVE AREA 3
1880	(758)	CHARACTER	4	LCCAOPIC3	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 3
1884	(75C)	CHARACTER	4	LCCAOPTE3	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 3
1888	(760)	CHARACTER	64	LCCAOPAR1	PROGRAM FLIH RECURSION ACCESS REGISTER SAVEAREA 1
1888	(760)	UNSIGNED	4	LCCAOP1A0	ACCESS REGISTER 0
1892	(764)	UNSIGNED	4	LCCAOP1A1	ACCESS REGISTER 1
1896	(768)	UNSIGNED	4	LCCAOP1A2	ACCESS REGISTER 2
1900	(76C)	UNSIGNED	4	LCCAOP1A3	ACCESS REGISTER 3
1904	(770)	UNSIGNED	4	LCCAOP1A4	ACCESS REGISTER 4
1908	(774)	UNSIGNED	4	LCCAOP1A5	ACCESS REGISTER 5
1912	(778)	UNSIGNED	4	LCCAOP1A6	ACCESS REGISTER 6
1916	(77C)	UNSIGNED	4	LCCAOP1A7	ACCESS REGISTER 7
1920	(780)	UNSIGNED	4	LCCAOP1A8	ACCESS REGISTER 8
1924	(784)	UNSIGNED	4	LCCAOP1A9	ACCESS REGISTER 9
1928	(788)	UNSIGNED	4	LCCAOP1AA	ACCESS REGISTER 10
1932	(78C)	UNSIGNED	4	LCCAOP1AB	ACCESS REGISTER 11
1936	(790)	UNSIGNED	4	LCCAOP1AC	ACCESS REGISTER 12
1940	(794)	UNSIGNED	4	LCCAOP1AD	ACCESS REGISTER 13
1944	(798)	UNSIGNED	4	LCCAOP1AE	ACCESS REGISTER 14
1948	(79C)	UNSIGNED	4	LCCAOP1AF	ACCESS REGISTER 15
1952	(7A0)	CHARACTER	64	LCCAOPAR4	PROGRAM FLIH ACCESS REGISTER SAVEAREA 4
1952	(7A0)	UNSIGNED	4	LCCAOP4A0	ACCESS REGISTER 0
1956	(7A4)	UNSIGNED	4	LCCAOP4A1	ACCESS REGISTER 1
1960	(7A8)	UNSIGNED	4	LCCAOP4A2	ACCESS REGISTER 2
1964	(7AC)	UNSIGNED	4	LCCAOP4A3	ACCESS REGISTER 3
1968	(7B0)	UNSIGNED	4	LCCAOP4A4	ACCESS REGISTER 4
1972	(7B4)	UNSIGNED	4	LCCAOP4A5	ACCESS REGISTER 5
1976	(7B8)	UNSIGNED	4	LCCAOP4A6	ACCESS REGISTER 6
1980	(7BC)	UNSIGNED	4	LCCAOP4A7	ACCESS REGISTER 7
1984	(7C0)	UNSIGNED	4	LCCAOP4A8	ACCESS REGISTER 8
1988	(7C4)	UNSIGNED	4	LCCAOP4A9	ACCESS REGISTER 9
1992	(7C8)	UNSIGNED	4	LCCAOP4AA	ACCESS REGISTER 10
1996	(7CC)	UNSIGNED	4	LCCAOP4AB	ACCESS REGISTER 11
2000	(7D0)	UNSIGNED	4	LCCAOP4AC	ACCESS REGISTER 12
2004	(7D4)	UNSIGNED	4	LCCAOP4AD	ACCESS REGISTER 13
2008	(7D8)	UNSIGNED	4	LCCAOP4AE	ACCESS REGISTER 14
2012	(7DC)	UNSIGNED	4	LCCAOP4AF	ACCESS REGISTER 15



Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2016	(7E0)	CHARACTER	64	LCCA0RARS	RESTART FLIH ACCESS REGISTER SAVEAREA
2016	(7E0)	UNSIGNED	4	LCCA0RAR0	ACCESS REGISTER 0
2020	(7E4)	UNSIGNED	4	LCCA0RAR1	ACCESS REGISTER 1
2024	(7E8)	UNSIGNED	4	LCCA0RAR2	ACCESS REGISTER 2
2028	(7EC)	UNSIGNED	4	LCCA0RAR3	ACCESS REGISTER 3
2032	(7F0)	UNSIGNED	4	LCCA0RAR4	ACCESS REGISTER 4
2036	(7F4)	UNSIGNED	4	LCCA0RAR5	ACCESS REGISTER 5
2040	(7F8)	UNSIGNED	4	LCCA0RAR6	ACCESS REGISTER 6
2044	(7FC)	UNSIGNED	4	LCCA0RAR7	ACCESS REGISTER 7
2048	(800)	UNSIGNED	4	LCCA0RAR8	ACCESS REGISTER 8
2052	(804)	UNSIGNED	4	LCCA0RAR9	ACCESS REGISTER 9
2056	(808)	UNSIGNED	4	LCCA0RARA	ACCESS REGISTER 10
2060	(80C)	UNSIGNED	4	LCCA0RARB	ACCESS REGISTER 11
2064	(810)	UNSIGNED	4	LCCA0RARC	ACCESS REGISTER 12
2068	(814)	UNSIGNED	4	LCCA0RARD	ACCESS REGISTER 13
2072	(818)	UNSIGNED	4	LCCA0RARE	ACCESS REGISTER 14
2076	(81C)	UNSIGNED	4	LCCA0RARF	ACCESS REGISTER 15
2080	(820)	CHARACTER	2	LCCA0R820	RESERVED
2082	(822)	SIGNED	2	LCCA00ILC	Original ILC. Only valid when LCCA0FPPE is on
2084	(824)	CHARACTER	64	LCCA0PCR3	PROGRAM FLIH RECURSION MC CONTROL REGISTER SAVEAREA 3
2084	(824)	UNSIGNED	4	LCCA0P3C0	CONTROL REGISTER 0
2088	(828)	UNSIGNED	4	LCCA0P3C1	CONTROL REGISTER 1
2092	(82C)	UNSIGNED	4	LCCA0P3C2	DUCT ORIGIN ADDRESS (CR2)
2096	(830)	CHARACTER	8	LCCA0PXM3	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 3 - MUST BE ON A DOUBLE WORD BOUNDARY.
2096	(830)	UNSIGNED	4	LCCA0P3C3	CONTROL REGISTER 3
2096	(830)	UNSIGNED	2	LCCA0PX3K	PROGRAM KEY MASK
2098	(832)	UNSIGNED	2	LCCA0PX3S	SASN
2100	(834)	UNSIGNED	4	LCCA0P3C4	CONTROL REGISTER 4
2100	(834)	UNSIGNED	2	LCCA0PX3A	AX
2102	(836)	UNSIGNED	2	LCCA0PX3P	PASN
2104	(838)	UNSIGNED	4	LCCA0P3C5	ASTE REAL ADDRESS
2108	(83C)	UNSIGNED	4	LCCA0P3C6	CONTROL REGISTER 6
2112	(840)	UNSIGNED	4	LCCA0P3C7	CONTROL REGISTER 7
2116	(844)	UNSIGNED	4	LCCA0P3C8	CONTROL REGISTER 8
2116	(844)	UNSIGNED	2	LCCA0PEX3	EAX VALUE (LH CR8)
2118	(846)	UNSIGNED	2	*	SECOND HALF OF CR8
2120	(848)	UNSIGNED	4	LCCA0P3C9	CONTROL REGISTER 9
2124	(84C)	UNSIGNED	4	LCCA0P3CA	CONTROL REGISTER 10
2128	(850)	UNSIGNED	4	LCCA0P3CB	CONTROL REGISTER 11
2132	(854)	UNSIGNED	4	LCCA0P3CC	CONTROL REGISTER 12
2136	(858)	UNSIGNED	4	LCCA0P3CD	CONTROL REGISTER 13
2140	(85C)	UNSIGNED	4	LCCA0P3CE	CONTROL REGISTER 14

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2144	(860)	UNSIGNED	4	LCCAOP3CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 3 (CR15)
2148	(864)	CHARACTER	64	LCCAOPCR4	PROGRAM FLIH CONTROL REGISTER SAVEAREA 4
2148	(864)	UNSIGNED	4	LCCAOP4C0	CONTROL REGISTER 0
2152	(868)	UNSIGNED	4	LCCAOP4C1	CONTROL REGISTER 1
2156	(86C)	UNSIGNED	4	LCCAOP4C2	DUCT ORIGIN ADDRESS (CR2)
2160	(870)	CHARACTER	8	LCCAOPXM4	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 4 - MUST BE ON A DOUBLE WORD BOUNDARY.
2160	(870)	UNSIGNED	4	LCCAOP4C3	CONTROL REGISTER 3
2160	(870)	UNSIGNED	2	LCCAOPX4K	PROGRAM KEY MASK
2162	(872)	UNSIGNED	2	LCCAOPX4S	SASN
2164	(874)	UNSIGNED	4	LCCAOP4C4	CONTROL REGISTER 4
2164	(874)	UNSIGNED	2	LCCAOPX4A	AX
2166	(876)	UNSIGNED	2	LCCAOPX4P	PASN
2168	(878)	UNSIGNED	4	LCCAOP4C5	ASTE REAL ADDRESS
2172	(87C)	UNSIGNED	4	LCCAOP4C6	CONTROL REGISTER 6
2176	(880)	UNSIGNED	4	LCCAOP4C7	CONTROL REGISTER 7
2180	(884)	UNSIGNED	4	LCCAOP4C8	CONTROL REGISTER 8
2180	(884)	UNSIGNED	2	LCCAOPEX4	EAX VALUE (LH CR8)
2182	(886)	UNSIGNED	2	*	SECOND HALF OF CR8
2184	(888)	UNSIGNED	4	LCCAOP4C9	CONTROL REGISTER 9
2188	(88C)	UNSIGNED	4	LCCAOP4CA	CONTROL REGISTER 10
2192	(890)	UNSIGNED	4	LCCAOP4CB	CONTROL REGISTER 11
2196	(894)	UNSIGNED	4	LCCAOP4CC	CONTROL REGISTER 12
2200	(898)	UNSIGNED	4	LCCAOP4CD	CONTROL REGISTER 13
2204	(89C)	UNSIGNED	4	LCCAOP4CE	CONTROL REGISTER 14
2208	(8A0)	UNSIGNED	4	LCCAOP4CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 4 (CR15)
2212	(8A4)	CHARACTER	64	LCCAORCRS	RESTART FLIH CONTROL REGISTER SAVEAREA
2212	(8A4)	UNSIGNED	4	LCCAORCR0	CONTROL REGISTER 0
2216	(8A8)	UNSIGNED	4	LCCAORCR1	CONTROL REGISTER 1
2220	(8AC)	ADDRESS	4	LCCAORCR2	DUCT ORIGIN ADDRESS (CR2)
2224	(8B0)	CHARACTER	8	LCCAORXMR	RESTART FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA - MUST BE ON A DOUBLE WORD BOUNDARY.
2224	(8B0)	UNSIGNED	4	LCCAORCR3	CONTROL REGISTER 3
2224	(8B0)	UNSIGNED	2	LCCAORXRK	PROGRAM KEY MASK
2226	(8B2)	UNSIGNED	2	LCCAORXRS	SASN
2228	(8B4)	UNSIGNED	4	LCCAORCR4	CONTROL REGISTER 4
2228	(8B4)	UNSIGNED	2	LCCAORXRA	AX
2230	(8B6)	UNSIGNED	2	LCCAORXRP	PASN
2232	(8B8)	UNSIGNED	4	LCCAORCR5	CONTROL REGISTER 5
2236	(8BC)	UNSIGNED	4	LCCAORCR6	CONTROL REGISTER 6
2240	(8C0)	UNSIGNED	4	LCCAORCR7	CONTROL REGISTER 7
2244	(8C4)	UNSIGNED	4	LCCAORCR8	CONTROL REGISTER 8

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2244	(8C4)	UNSIGNED	2	LCCAOREAX	EAX VALUE (LH CR8)
2246	(8C6)	UNSIGNED	2	*	SECOND HALF OF CR8
2248	(8C8)	UNSIGNED	4	LCCAORCR9	CONTROL REGISTER 9
2252	(8CC)	UNSIGNED	4	LCCAORCRA	CONTROL REGISTER 10
2256	(8D0)	UNSIGNED	4	LCCAORCRB	CONTROL REGISTER 11
2260	(8D4)	UNSIGNED	4	LCCAORCRC	CONTROL REGISTER 12
2264	(8D8)	UNSIGNED	4	LCCAORCRD	CONTROL REGISTER 13
2268	(8DC)	UNSIGNED	4	LCCAORCRE	CONTROL REGISTER 14
2272	(8E0)	ADDRESS	4	LCCAORCRF	LINKAGE STACK ENTRY ADDRESS (CR15)
2276	(8E4)	CHARACTER	64	LCCAOPGR5	PROGRAM FLIH RECURSION REGISTER SAVE AREA 5
2340	(924)	ADDRESS	4	LCCAOPSB5	ASCB ADDRESS WHERE PAGE/SEGMENT FAULT OCCURRED
2344	(928)	CHARACTER	64	LCCAOPAR5	PROGRAM FLIH RECURSION ACCESS REGISTER SAVEAREA 5
2344	(928)	UNSIGNED	4	LCCAOP5A0	ACCESS REGISTER 0
2348	(92C)	UNSIGNED	4	LCCAOP5A1	ACCESS REGISTER 1
2352	(930)	UNSIGNED	4	LCCAOP5A2	ACCESS REGISTER 2
2356	(934)	UNSIGNED	4	LCCAOP5A3	ACCESS REGISTER 3
2360	(938)	UNSIGNED	4	LCCAOP5A4	ACCESS REGISTER 4
2364	(93C)	UNSIGNED	4	LCCAOP5A5	ACCESS REGISTER 5
2368	(940)	UNSIGNED	4	LCCAOP5A6	ACCESS REGISTER 6
2372	(944)	UNSIGNED	4	LCCAOP5A7	ACCESS REGISTER 7
2376	(948)	UNSIGNED	4	LCCAOP5A8	ACCESS REGISTER 8
2380	(94C)	UNSIGNED	4	LCCAOP5A9	ACCESS REGISTER 9
2384	(950)	UNSIGNED	4	LCCAOP5AA	ACCESS REGISTER 10
2388	(954)	UNSIGNED	4	LCCAOP5AB	ACCESS REGISTER 11
2392	(958)	UNSIGNED	4	LCCAOP5AC	ACCESS REGISTER 12
2396	(95C)	UNSIGNED	4	LCCAOP5AD	ACCESS REGISTER 13
2400	(960)	UNSIGNED	4	LCCAOP5AE	ACCESS REGISTER 14
2404	(964)	UNSIGNED	4	LCCAOP5AF	ACCESS REGISTER 15
2408	(968)	UNSIGNED	1	LCCAOPTR5	PROGRAM FLIH RECURSION TEA AR NUMBER SAVEAREA 5
2409	(969)	UNSIGNED	1	LCCAOPMFV	RECURSIVE PAGE FAULT MAINLINE FUNCTION VALUE SAVEAREA
2410	(96A)	UNSIGNED	2	LCCAODIEP	PASN value set by previous CMSET, SET, DIE=YES, ... Used by program FLIH to determine whether a SSE program interrupt is valid.
2412	(96C)	CHARACTER	64	LCCAOPCR5	PROGRAM FLIH RECURSION CONTROL REGISTER SAVEAREA 5
2412	(96C)	UNSIGNED	4	LCCAOP5C0	CONTROL REGISTER 0
2416	(970)	UNSIGNED	4	LCCAOP5C1	CONTROL REGISTER 1
2420	(974)	ADDRESS	4	LCCAOP5C2	DUCT ORIGIN ADDRESS (CR2)
2424	(978)	CHARACTER	8	LCCAOPXM5	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 5 - MUST BE ON A DOUBLE WORD BOUNDARY.
2424	(978)	UNSIGNED	4	LCCAOP5C3	CONTROL REGISTER 3
2424	(978)	UNSIGNED	2	LCCAOPX5K	PROGRAM KEY MASK
2426	(97A)	UNSIGNED	2	LCCAOPX5S	SASN

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2428	(97C)	UNSIGNED	4	LCCAOP5C4	CONTROL REGISTER 4
2428	(97C)	UNSIGNED	2	LCCAOPX5A	AX
2430	(97E)	UNSIGNED	2	LCCAOPX5P	PASN
2432	(980)	UNSIGNED	4	LCCAOP5C5	CONTROL REGISTER 5
2436	(984)	UNSIGNED	4	LCCAOP5C6	CONTROL REGISTER 6
2440	(988)	UNSIGNED	4	LCCAOP5C7	CONTROL REGISTER 7
2444	(98C)	UNSIGNED	4	LCCAOP5C8	CONTROL REGISTER 8
2444	(98C)	UNSIGNED	2	LCCAOPEX5	EAX VALUE (LH CR8)
2446	(98E)	UNSIGNED	2	*	SECOND HALF OF CR8
2448	(990)	UNSIGNED	4	LCCAOP5C9	CONTROL REGISTER 9
2452	(994)	UNSIGNED	4	LCCAOP5CA	CONTROL REGISTER 10
2456	(998)	UNSIGNED	4	LCCAOP5CB	CONTROL REGISTER 11
2460	(99C)	UNSIGNED	4	LCCAOP5CC	CONTROL REGISTER 12
2464	(9A0)	UNSIGNED	4	LCCAOP5CD	CONTROL REGISTER 13
2468	(9A4)	UNSIGNED	4	LCCAOP5CE	CONTROL REGISTER 14
2472	(9A8)	ADDRESS	4	LCCAOP5CF	LINKAGE STACK ENTRY ADDRESS (CR15)
2476	(9AC)	ADDRESS	4	LCCA0DSA5	REAL ADDRESS OF THE DATA SPACE ASTE CAUSING THE RECURSIVE FAULT.
2480	(9B0)	CHARACTER	8	LCCAOPPS5	PROGRAM FLIH RECURSION PSW SA 5
2488	(9B8)	CHARACTER	4	LCCAOPIC5	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 5
2492	(9BC)	CHARACTER	4	LCCAOPTE5	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 5
2492	(9BC)	CHARACTER	3	*	FIRST THREE BYTES OF ADDRESS
2495	(9BF)	BITSTRING	1	LCCAOPSTL	LAST BYTE OF LCCAOPTE5
	1111 11..			*	
	.... ..11			LCCAOPST5	STD FIELD - LAST TWO BITS OF LCCAOPTE5 ..... .. '00' - PRIMARY STD USED .. '01' - STD WAS AR QUALIFIED .. '10' - SECONDARY STD USED .. '11' - HOME STD USED.
2496	(9C0)	CHARACTER	8	LCCAOTTSC	Workunit Time Slice Interval. Ownership: SRM Serialization: SRM Lock.
2496	(9C0)	BITSTRING	4	LCCAOTTST1	High Order 32 bits of LCCAOTTSC. Ownership: SRM Serialization: SRM Lock.
2500	(9C4)	BITSTRING	4	LCCAOTTST2	Low Order 32 bits of LCCAOTTSC. Ownership: SRM Serialization: SRM Lock.
2504	(9C8)	CHARACTER	8	LCCAOWTSC	WAIT TASK TIME SLICE INTERVAL
2504	(9C8)	BITSTRING	4	LCCAOWTS1	HIGH ORDER 32 BITS
2508	(9CC)	BITSTRING	4	LCCAOWTS2	LOW ORDER 32 BITS
2512	(9D0)	UNSIGNED	4	LCCAOTP	Workunit Preemption Count- number of workunit time slice expirations. Ownership: Supervisor Control. Serialization: Disablement on current processor.
2516	(9D4)	UNSIGNED	4	LCCAOTPU	Unproductive Workunit Preemption Count - number of workunit time slice expirations that were not needed. Ownership: Supervisor Control. Serialization: Disablement on current processor.

Table 676. Structure LCCAO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
2520	(9D8)	UNSIGNED	4	LCCAOWP	WAIT PREEMPTION COUNT - NUMBER OF WAIT TASK TIME SLICE EXPIRATIONS
2524	(9DC)	UNSIGNED	4	LCCAOWPU	UNPRODUCTIVE WAIT PREEMPTION COUNT - NUMBER OF WAIT TASK TIME SLICE EXPIRATIONS THAT WERE NOT NEEDED
2528	(9E0)	UNSIGNED	4	LCCAOTPB	Workunit Preemption Count Base - previous value of LCCAOTP. Ownership: SRM Serialization: SRM Lock.
2532	(9E4)	UNSIGNED	4	LCCAOTPU	Unproductive Workunit Preemption Count Base - previous value of LCCAOTPU. Ownership: SRM Serialization: SRM Lock.
2536	(9E8)	UNSIGNED	4	LCCAOWPB	WAIT PREEMPTION COUNT BASE - PREVIOUS VALUE OF LCCAOWP
2540	(9EC)	UNSIGNED	4	LCCAOWPUB	UNPRODUCTIVE WAIT PREEMPTION COUNT BASE - PREVIOUS VALUE OF LCCAOWPU
2544	(9F0)	SIGNED	2	LCCA00ID	Active ASID or Enclave ID when the workunit time slice expired.
	1... ....			LCCA0ENID	LCCA00ID is an Enclave ID.
2546	(9F2)	UNSIGNED	1	LCCA0MTSC	Maximum number of dispatchs per task
2547	(9F3)	UNSIGNED	1	LCCA0CTSC	Number of consecutive dispatches remaining for this task
2548	(9F4)	UNSIGNED	4	LCCA0PPRI	Priority of the active work unit when Time Slice Expired. SERIALIZATION: Disablement OWNERSHIP: Supervisor Control
2552	(9F8)	UNSIGNED	4	LCCA0CPTM	THIS CPU'S COUNT DOWN TIMER OWNERSHIP: SUPERVISOR SERIALIZATION: NONE
2556	(9FC)	ADDRESS	4	LCCA0CLSD	The address of the LSSD for the currently executing SRB routine. Only valid when an SRB is executing.
2560	(A00)	ADDRESS	4	LCCA0WUQA(0:17)	Array of Work Unit Queues for this processor. SERIALIZATION: Disablement. Global Intersect is required to change an element in another processor's LCCA0WUQA. OWNERSHIP: Supervisor Control
2632	(A48)	CHARACTER	0	LCCA0END	END OF LCCA0.

Table 677. Cross Reference for IHALCCAO

Name	Offset	Hex Tag
LCCA0	0	
LCCA0ACR	21C	80
LCCA0ALOV	618	
LCCA0AOLD	298	
LCCA0AOLS	21F	08
LCCA0BBCT	200	
LCCA0BBRC	568	
LCCA0BFP	3C1	10
LCCA0BFPH	3C1	01
LCCA0BRCH	2B8	02
LCCA0BWTO	2B8	01

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0CAFM	6	
LCCA0CDSA	594	
LCCA0CDSB	598	
LCCA0CDSC	59C	
LCCA0CDSD	5A0	
LCCA0CDSE	5A4	
LCCA0CDSF	5A8	
LCCA0CDSV	56C	
LCCA0CDS0	56C	
LCCA0CDS1	570	
LCCA0CDS2	574	
LCCA0CDS3	578	
LCCA0CDS4	57C	
LCCA0CDS5	580	
LCCA0CDS6	584	
LCCA0CDS7	588	
LCCA0CDS8	58C	
LCCA0CDS9	590	
LCCA0CDXM	548	
LCCA0CHAP	20D	40
LCCA0CLMS	2B4	40
LCCA0CLSD	9FC	
LCCA0CPTM	9F8	
LCCA0CPUA	4	
LCCA0CPUR	20D	20
LCCA0CPUS	218	
LCCA0CRDP	2B5	02
LCCA0CREF	2B5	80
LCCA0CREX	2B5	
LCCA0CRFL	2B4	
LCCA0CRIN	2B5	08
LCCA0CRLC	2AC	
LCCA0CRLE	2B5	20
LCCA0CRLM	2B5	04
LCCA0CRRM	2B5	40
LCCA0CRRT	2B5	10
LCCA0CRST	2B5	01
LCCA0CRTM	2B4	80
LCCA0CRYP	21F	80

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOCR0	9C	
LCCAOCR8W	558	
LCCA0CTSC	9F3	
LCCA0CVSR	2B8	04
LCCA0CWEB	344	
LCCA0DBCT	224	
LCCA0DCPU	2A4	
LCCA0DIEP	96A	
LCCA0DSA2	160	
LCCA0DSA5	9AC	
LCCA0DSE1	3C0	80
LCCA0DSE2	3C0	40
LCCA0DSE3	3C0	20
LCCA0DSE4	3C0	10
LCCA0DSE5	3C0	08
LCCA0DSF1	21C	
LCCA0DSF2	21D	
LCCA0DSV1	228	
LCCA0DSV2	22C	
LCCA0DSV3	230	
LCCA0DSV4	234	
LCCA0DSV5	238	
LCCA0DSV6	23C	
LCCA0DS0F	3C0	
LCCA0DS0W	220	
LCCA0DS7E	21D	02
LCCA0EE1R	240	
LCCA0EE2R	244	
LCCA0EE3R	248	
LCCA0ELKP	470	
LCCA0EMS0	670	
LCCA0END	A48	
LCCA0ENID	9F0	80
LCCA0ERIS	20C	40
LCCA0ESAV	294	
LCCA0ESC2	2B9	80
LCCA0ESMR	2B8	10
LCCA0ESPN	20D	08
LCCA0ETP	368	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0ETPB	36C	
LCCA0ETSC	21C	20
LCCA0EUTR	21D	08
LCCA0EUTS	21D	10
LCCA0EXSN	20C	01
LCCA0FPFL	3C1	
LCCA0FPWA	28C	
LCCA0FPWR	290	
LCCA0FWP	354	
LCCA0FWPC	358	
LCCA0FWPP	354	
LCCA0HSCS	21F	40
LCCA0IDUR	3D4	
LCCA0IDUV	3D0	
LCCA0IHRC	208	
LCCA0IHR1	208	
LCCA0IHR2	209	
LCCA0IHR3	20A	
LCCA0IHR4	20B	
LCCA0INGR	1E0	
LCCA0INT	20C	02
LCCA0IOC3	560	
LCCA0IOC4	564	
LCCA0IOR1	2E4	
LCCA0IOR2	2E8	
LCCA0IOR3	2EC	
LCCA0IOSS	55C	
LCCA0IOWA	2E0	
LCCA0IOXM	55C	
LCCA0LCCAO	0	
LCCA0LCCX	28C	
LCCA0LCR0	2B0	
LCCA0LCXR	290	
LCCA0LKFG	2B6	
LCCA0LKG1	3E8	
LCCA0LKG2	430	
LCCA0LKRD	2B6	10
LCCA0LOCK	20C	20
LCCA0LSDP	624	



Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOLSHD	748	
LCCAOLSHP	74C	
LCCAOLSSD	620	
LCCAOLWTM	2C0	
LCCAOMCR0	204	
LCCAOMPEN	204	10
LCCAOMSF	20D	80
LCCAOMTSC	9F2	
LCCAONWEB	348	
LCCA00ID	9F0	
LCCA00ILC	822	
LCCA00RMT	2D8	
LCCA0PAR1	760	
LCCA0PAR2	E0	
LCCA0PAR3	630	
LCCA0PAR4	7A0	
LCCA0PAR5	928	
LCCA0PASS	21F	20
LCCA0PCR1	2F4	
LCCA0PCR2	164	
LCCA0PCR3	824	
LCCA0PCR4	864	
LCCA0PCR5	96C	
LCCA0PDXC	97	
LCCA0PEEC	92	
LCCA0PERA	3C4	
LCCA0PERC	3C2	
LCCA0PEX1	314	
LCCA0PEX2	184	
LCCA0PEX3	844	
LCCA0PEX4	884	
LCCA0PEX5	98C	
LCCA0PGMM	50A	
LCCA0PGR1	8	
LCCA0PGR2	48	
LCCA0PGR3	A0	
LCCA0PGR4	6C0	
LCCA0PGR5	8E4	
LCCA0PGTA	2D2	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOPICA	93	7F
LCCAOPICB	93	3F
LCCAOPICC	9B	
LCCAOPICD	93	
LCCAOPIC1	6B8	
LCCAOPIC3	758	
LCCAOPIC5	9B8	
LCCAOPILC	91	
LCCAOPINT	90	
LCCAOPMC	93	40
LCCAOPMFV	969	
LCCAOPOST	5F0	
LCCAOPPER	93	80
LCCAOPPRI	9F4	
LCCAOPPR2	24F	
LCCAOPPSW	88	
LCCAOPPS1	6B0	
LCCAOPPS3	750	
LCCAOPPS5	9B0	
LCCAOPRMW	53C	
LCCAOPRTN	544	
LCCAOPSB2	61C	
LCCAOPSB5	924	
LCCAOPSLI	700	
LCCAOPSMK	21E	
LCCAOPSTD	97	
LCCAOPSTF	97	03
LCCAOPSTL	9BF	
LCCAOPST5	9BF	03
LCCAOPSW3	1D8	
LCCAOPTCB	540	
LCCAOPTE1	6BC	
LCCAOPTE3	75C	
LCCAOPTE5	9BC	
LCCAOPTR1	24C	
LCCAOPTR2	24D	
LCCAOPTR3	24E	
LCCAOPTR5	968	
LCCAOPVAD	94	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOPVXM	94	80
LCCAOPWEB	220	
LCCAOPXM1	300	
LCCAOPXM2	170	
LCCAOPXM3	830	
LCCAOPXM4	870	
LCCAOPXM5	978	
LCCAOPX1A	304	
LCCAOPX1K	300	
LCCAOPX1P	306	
LCCAOPX1S	302	
LCCAOPX2A	174	
LCCAOPX2K	170	
LCCAOPX2P	176	
LCCAOPX2S	172	
LCCAOPX3A	834	
LCCAOPX3K	830	
LCCAOPX3P	836	
LCCAOPX3S	832	
LCCAOPX4A	874	
LCCAOPX4K	870	
LCCAOPX4P	876	
LCCAOPX4S	872	
LCCAOPX5A	97C	
LCCAOPX5K	978	
LCCAOPX5P	97E	
LCCAOPX5S	97A	
LCCAOP1AA	788	
LCCAOP1AB	78C	
LCCAOP1AC	790	
LCCAOP1AD	794	
LCCAOP1AE	798	
LCCAOP1AF	79C	
LCCAOP1A0	760	
LCCAOP1A1	764	
LCCAOP1A2	768	
LCCAOP1A3	76C	
LCCAOP1A4	770	
LCCAOP1A5	774	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOP1A6	778	
LCCAOP1A7	77C	
LCCAOP1A8	780	
LCCAOP1A9	784	
LCCAOP1CA	31C	
LCCAOP1CB	320	
LCCAOP1CC	324	
LCCAOP1CD	328	
LCCAOP1CE	32C	
LCCAOP1CF	330	
LCCAOP1C0	2F4	
LCCAOP1C1	2F8	
LCCAOP1C2	2FC	
LCCAOP1C3	300	
LCCAOP1C4	304	
LCCAOP1C5	308	
LCCAOP1C6	30C	
LCCAOP1C7	310	
LCCAOP1C8	314	
LCCAOP1C9	318	
LCCAOP2AA	108	
LCCAOP2AB	10C	
LCCAOP2AC	110	
LCCAOP2AD	114	
LCCAOP2AE	118	
LCCAOP2AF	11C	
LCCAOP2A0	E0	
LCCAOP2A1	E4	
LCCAOP2A2	E8	
LCCAOP2A3	EC	
LCCAOP2A4	F0	
LCCAOP2A5	F4	
LCCAOP2A6	F8	
LCCAOP2A7	FC	
LCCAOP2A8	100	
LCCAOP2A9	104	
LCCAOP2CA	18C	
LCCAOP2CB	190	
LCCAOP2CC	194	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOP2CD	198	
LCCAOP2CE	19C	
LCCAOP2CF	1A0	
LCCAOP2C0	164	
LCCAOP2C1	168	
LCCAOP2C2	16C	
LCCAOP2C3	170	
LCCAOP2C4	174	
LCCAOP2C5	178	
LCCAOP2C6	17C	
LCCAOP2C7	180	
LCCAOP2C8	184	
LCCAOP2C9	188	
LCCAOP3AA	658	
LCCAOP3AB	65C	
LCCAOP3AC	660	
LCCAOP3AD	664	
LCCAOP3AE	668	
LCCAOP3AF	66C	
LCCAOP3A0	630	
LCCAOP3A1	634	
LCCAOP3A2	638	
LCCAOP3A3	63C	
LCCAOP3A4	640	
LCCAOP3A5	644	
LCCAOP3A6	648	
LCCAOP3A7	64C	
LCCAOP3A8	650	
LCCAOP3A9	654	
LCCAOP3CA	84C	
LCCAOP3CB	850	
LCCAOP3CC	854	
LCCAOP3CD	858	
LCCAOP3CE	85C	
LCCAOP3CF	860	
LCCAOP3C0	824	
LCCAOP3C1	828	
LCCAOP3C2	82C	
LCCAOP3C3	830	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0P3C4	834	
LCCA0P3C5	838	
LCCA0P3C6	83C	
LCCA0P3C7	840	
LCCA0P3C8	844	
LCCA0P3C9	848	
LCCA0P4AA	7C8	
LCCA0P4AB	7CC	
LCCA0P4AC	7D0	
LCCA0P4AD	7D4	
LCCA0P4AE	7D8	
LCCA0P4AF	7DC	
LCCA0P4A0	7A0	
LCCA0P4A1	7A4	
LCCA0P4A2	7A8	
LCCA0P4A3	7AC	
LCCA0P4A4	7B0	
LCCA0P4A5	7B4	
LCCA0P4A6	7B8	
LCCA0P4A7	7BC	
LCCA0P4A8	7C0	
LCCA0P4A9	7C4	
LCCA0P4CA	88C	
LCCA0P4CB	890	
LCCA0P4CC	894	
LCCA0P4CD	898	
LCCA0P4CE	89C	
LCCA0P4CF	8A0	
LCCA0P4C0	864	
LCCA0P4C1	868	
LCCA0P4C2	86C	
LCCA0P4C3	870	
LCCA0P4C4	874	
LCCA0P4C5	878	
LCCA0P4C6	87C	
LCCA0P4C7	880	
LCCA0P4C8	884	
LCCA0P4C9	888	
LCCA0P5AA	950	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAOP5AB	954	
LCCAOP5AC	958	
LCCAOP5AD	95C	
LCCAOP5AE	960	
LCCAOP5AF	964	
LCCAOP5A0	928	
LCCAOP5A1	92C	
LCCAOP5A2	930	
LCCAOP5A3	934	
LCCAOP5A4	938	
LCCAOP5A5	93C	
LCCAOP5A6	940	
LCCAOP5A7	944	
LCCAOP5A8	948	
LCCAOP5A9	94C	
LCCAOP5CA	994	
LCCAOP5CB	998	
LCCAOP5CC	99C	
LCCAOP5CD	9A0	
LCCAOP5CE	9A4	
LCCAOP5CF	9A8	
LCCAOP5C0	96C	
LCCAOP5C1	970	
LCCAOP5C2	974	
LCCAOP5C3	978	
LCCAOP5C4	97C	
LCCAOP5C5	980	
LCCAOP5C6	984	
LCCAOP5C7	988	
LCCAOP5C8	98C	
LCCAOP5C9	990	
LCCAORARA	808	
LCCAORARB	80C	
LCCAORARC	810	
LCCAORARD	814	
LCCAORARE	818	
LCCAORARF	81C	
LCCAORARS	7E0	
LCCAORAR0	7E0	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCAORAR1	7E4	
LCCAORAR2	7E8	
LCCAORAR3	7EC	
LCCAORAR4	7F0	
LCCAORAR5	7F4	
LCCAORAR6	7F8	
LCCAORAR7	7FC	
LCCAORAR8	800	
LCCAORAR9	804	
LCCAORCPU	2A8	
LCCAORCRA	8CC	
LCCAORCRB	8D0	
LCCAORCRC	8D4	
LCCAORCRD	8D8	
LCCAORCRE	8DC	
LCCAORCRF	8E0	
LCCAORCRS	8A4	
LCCAORCR0	8A4	
LCCAORCR1	8A8	
LCCAORCR2	8AC	
LCCAORCR3	8B0	
LCCAORCR4	8B4	
LCCAORCR5	8B8	
LCCAORCR6	8BC	
LCCAORCR7	8C0	
LCCAORCR8	8C4	
LCCAORCR9	8C8	
LCCAOREAX	8C4	
LCCAORES1	50C	
LCCAORES2	528	
LCCAORSGR	120	
LCCAORSME	50C	
LCCAORSMK	509	
LCCAORSTP	2B8	40
LCCAORSTR	20C	08
LCCAORSWS	224	80
LCCAORWEB	5EC	
LCCAORWLK	5EC	80
LCCAORWQL	37C	



Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0RXMR	8B0	
LCCA0RXRA	8B4	
LCCA0RXRK	8B0	
LCCA0RXRP	8B6	
LCCA0RXRS	8B2	
LCCA0R1A4	1A4	
LCCA0R2DC	2DC	
LCCA0R2F0	2F0	
LCCA0R265	265	
LCCA0R270	270	
LCCA0R35C	35C	
LCCA0R370	370	
LCCA0R820	820	
LCCA0SAFN	2D0	
LCCA0SCFL	21F	
LCCA0SCSA	4C0	
LCCA0SCW1	3D8	
LCCA0SCW2	3DC	
LCCA0SDUR	3CC	
LCCA0SDUV	3C8	
LCCA0SGPR	380	
LCCA0SIGS	20C	80
LCCA0SLEB	2B8	
LCCA0SLE1	2B8	
LCCA0SLE2	2B9	
LCCA0SLIP	2BC	
LCCA0SLSA	5AC	
LCCA0SMQJ	360	
LCCA0MSK	508	
LCCA0S0PI	97	04
LCCA0SPIN	20C	
LCCA0SPLJ	364	
LCCA0SPN1	20C	
LCCA0SPN2	20D	
LCCA0SPN3	20E	
LCCA0SPN4	20F	
LCCA0SPSW	534	
LCCA0SRBF	2D0	
LCCA0SRBJ	2A0	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0SRBM	21D	80
LCCA0SREG	4D4	
LCCA0SRGS	538	
LCCA0SRSA	550	
LCCA0SRTK	554	
LCCA0SRXM	550	
LCCA0SSA2	2C8	
LCCA0SSA5	2CC	
LCCA0SSRB	21D	20
LCCA0SSTA	2D8	40
LCCA0SSTD	2D8	80
LCCA0SSTE	2D8	20
LCCA0STAS	20D	10
LCCA0STCP	2B8	80
LCCA0STCT	264	
LCCA0STG1	478	
LCCA0STST	20D	04
LCCA0SVC6	21C	04
LCCA0SXLS	20D	02
LCCA0SXMR	3E0	
LCCA0TCAC	50B	40
LCCA0TCFB	50B	
LCCA0TCR0	250	
LCCA0TCTL	50B	80
LCCA0TCT2	21C	02
LCCA0TIMR	21C	10
LCCA0TODH	210	
LCCA0TODL	214	
LCCA0TOLD	29C	
LCCA0TOLS	21F	04
LCCA0TP	9D0	
LCCA0TPB	9E0	
LCCA0TPU	9D4	
LCCA0TPUB	9E4	
LCCA0TSMC	21C	08
LCCA0TSPN	20C	10
LCCA0TTSC	9C0	
LCCA0TTS1	9C0	
LCCA0TTS2	9C4	

Table 677. Cross Reference for IHALCCAO (continued)

Name	Offset	Hex Tag
LCCA0TVS	21D	04
LCCA0TVSE	21F	10
LCCA0TVS2	21D	01
LCCA0TVS3	21F	02
LCCA0VARY	2B4	01
LCCA0VCPU	21C	40
LCCA0VTOD	2B8	20
LCCA0WDT	334	
LCCA0WFCT	202	
LCCA0WP	9D8	
LCCA0WPB	9E8	
LCCA0WPU	9DC	
LCCA0WPUB	9EC	
LCCA0WS	260	
LCCA0WSD	258	
LCCA0WSU	25C	
LCCA0WTD	254	
LCCA0WTIM	268	
LCCA0WTSC	9C8	
LCCA0WTS1	9C8	
LCCA0WTS2	9CC	
LCCA0WUQA	A00	
LCCA0WUQI	34C	
LCCA0WUQM	350	
LCCA0WUQR	34E	
LCCA0XLS	2B9	40
LCCA0XMFA	2B8	08
LCCA0XRC1	208	80
LCCA0XRC2	208	40
LCCA0XTIM	628	

## IHALCCX information

### IHALCCX programming interface information

**ONLY** the following fields are part of the programming interface information:

- LCCX\_Sigp\_Count\_Addr
- LCCX\_SystrcBuf\_Count
- LCCX\_TimeParked
- LCCX\_TimerDIE\_CPUTime

- LCCXECCC

## IHALCCX heading information

<b>Common name:</b>	Extended Status Saving Work Area
<b>Macro ID:</b>	IHALCCX
<b>DSECT name:</b>	LCCX
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	LCCX Offset: X'6C0' Length: 4
<b>Storage attributes:</b>	Subpool: 239 Key: 0 Residency: Above 16M
<b>Size:</b>	LCCX -- X'0C00' bytes
<b>Created by:</b>	IEAVNIPO (ipl CPU), IEEVCPRA (other CPU)
<b>Pointed to by:</b>	LCCALCCX (virtual) LCCALCXR (real)
<b>Serialization:</b>	Disablement
<b>Function:</b>	Maps the area used for extended status saving things

## IHALCCX mapping

Table 678. Structure LCCX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	3072	LCCX	
0	(0)	CHARACTER	512	LCCXFPWA	The FPWA is mapped here
0	(0)	CHARACTER	128	LCCXTXPG641	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
0	(0)	CHARACTER	64	LCCXTXPG641_H	64-bit reg high halves
64	(40)	CHARACTER	64	LCCXTXPG641_L	64-bit reg low halves
128	(80)	CHARACTER	128	LCCXTXPG642	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
128	(80)	CHARACTER	64	LCCXTXPG642_H	64-bit reg high halves
192	(C0)	CHARACTER	64	LCCXTXPG642_L	64-bit reg low halves
256	(100)	CHARACTER	128	LCCXTXPG643	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
256	(100)	CHARACTER	64	LCCXTXPG643_H	64-bit reg high halves
320	(140)	CHARACTER	64	LCCXTXPG643_L	64-bit reg low halves

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
384	(180)	CHARACTER	128	LCCXTXPG644	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPC0 requires that the high halves be first
384	(180)	CHARACTER	64	LCCXTXPG644_H	64-bit reg high halves
448	(1C0)	CHARACTER	64	LCCXTXPG644_L	64-bit reg low halves
512	(200)	CHARACTER	64	LCCXLCCAP64H1	Program FLIH recursion 64-bit GPR high-order half savearea 1
576	(240)	CHARACTER	64	LCCXLCCAP64H2	Program FLIH mainline 64-bit GPR high-order half savearea 2
640	(280)	CHARACTER	64	LCCXLCCAP64H3	Program FLIH recursion MC access 64-bit GPR high-order half savearea 3
704	(2C0)	CHARACTER	64	LCCXLCCAP64H4	Program FLIH 64-bit GPR high-order half savearea 4
768	(300)	CHARACTER	64	LCCXLCCAP64H5	Program FLIH recursion 64-bit GPR high-order half savearea 5
832	(340)	CHARACTER	64	LCCXLCCARG64H	Restart FLIH 64-bit GPR high-order half savearea
896	(380)	CHARACTER	16	LCCXPPSW16_1	16-byte PSW which is scrunched into LCCAPPS1
912	(390)	CHARACTER	16	LCCXPPSW16_2	16-byte PSW which is scrunched into LCCAPPSW
928	(3A0)	CHARACTER	16	LCCXPPSW16_3	16-byte PSW which is scrunched into LCCAPPS3
944	(3B0)	CHARACTER	16	LCCXPPSW16_5	16-byte PSW which is scrunched into LCCAPPS5
960	(3C0)	CHARACTER	128	LCCXTXPG645	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPC0 requires that the high halves be first
960	(3C0)	CHARACTER	64	LCCXTXPG645_H	64-bit reg high halves
1024	(400)	CHARACTER	64	LCCXTXPG645_L	64-bit reg low halves
1088	(440)	CHARACTER	16	LCCXTXPPSW16_1	PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1104	(450)	CHARACTER	16	LCCXTXPPSW16_2	PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1120	(460)	CHARACTER	16	LCCXTXPPSW16_3	PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1136	(470)	CHARACTER	16	LCCXTXPPSW16_4	PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1152	(480)	CHARACTER	16	LCCXTXPPSW16_5	PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1168	(490)	CHARACTER	48	LCCXR490	Reserved
1216	(4C0)	CHARACTER	128	LCCXR4C0	Reserved
1344	(540)	CHARACTER	128	LCCXLCCAPCR4	8-byte CRs
1344	(540)	CHARACTER	8	LCCXLCCAPCR4_0	CR0
1344	(540)	CHARACTER	4	LCCXLCCAPCR4_0H	CR 0 high half
1348	(544)	CHARACTER	4	LCCXLCCAPCR4_0L	CR 0 low half
1352	(548)	CHARACTER	8	LCCXLCCAPCR4_1	CR1
1360	(550)	CHARACTER	8	LCCXLCCAPCR4_2	CR2

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1368	(558)	CHARACTER	16	LCCXLCCAPCR4_XM	CR3/4
1368	(558)	CHARACTER	8	LCCXLCCAPCR4_3	CR3
1376	(560)	CHARACTER	8	LCCXLCCAPCR4_4	CR4
1384	(568)	CHARACTER	8	LCCXLCCAPCR4_5	CR5
1392	(570)	CHARACTER	8	LCCXLCCAPCR4_6	CR6
1400	(578)	CHARACTER	8	LCCXLCCAPCR4_7	CR7
1408	(580)	CHARACTER	8	LCCXLCCAPCR4_8	CR8
1408	(580)	CHARACTER	4	LCCXLCCAPCR4_8H	CR 8 high half
1412	(584)	CHARACTER	4	LCCXLCCAPCR4_8L	CR 8 low half
1412	(584)	CHARACTER	2	LCCXLCCAPCR4_EAX	EAX in CR8
1416	(588)	CHARACTER	8	LCCXLCCAPCR4_9	CR9
1424	(590)	CHARACTER	8	LCCXLCCAPCR4_A	CR 10
1432	(598)	CHARACTER	8	LCCXLCCAPCR4_B	CR 11
1440	(5A0)	CHARACTER	8	LCCXLCCAPCR4_C	CR 12
1448	(5A8)	CHARACTER	8	LCCXLCCAPCR4_D	CR 13
1456	(5B0)	CHARACTER	8	LCCXLCCAPCR4_E	CR 14
1464	(5B8)	CHARACTER	8	LCCXLCCAPCR4_F	CR 15
1464	(5B8)	CHARACTER	4	LCCXLCCAPCR4_FH	CR 15 high half
1468	(5BC)	CHARACTER	4	LCCXLCCAPCR4_FL	CR 15 low half
1472	(5C0)	CHARACTER	128	LCCXLCCAPCR5	8-byte CRs
1472	(5C0)	CHARACTER	8	LCCXLCCAPCR5_0	CR0
1472	(5C0)	CHARACTER	4	LCCXLCCAPCR5_0H	CR 0 high half
1476	(5C4)	CHARACTER	4	LCCXLCCAPCR5_0L	CR 0 low half
1480	(5C8)	CHARACTER	8	LCCXLCCAPCR5_1	CR1
1480	(5C8)	CHARACTER	4	LCCXLCCAPCR5_1H	CR 1 high half
1484	(5CC)	CHARACTER	4	LCCXLCCAPCR5_1L	CR 1 low half
1488	(5D0)	CHARACTER	8	LCCXLCCAPCR5_2	CR2
1488	(5D0)	CHARACTER	4	LCCXLCCAPCR5_2H	CR 2 high half
1492	(5D4)	CHARACTER	4	LCCXLCCAPCR5_2L	CR 2 low half
1496	(5D8)	CHARACTER	16	LCCXLCCAPCR5_XM	CR3/4
1496	(5D8)	CHARACTER	8	LCCXLCCAPCR5_3	CR3
1496	(5D8)	CHARACTER	4	LCCXLCCAPCR5_SINS	
1500	(5DC)	CHARACTER	2	LCCXLCCAPCR5_KM	
1502	(5DE)	CHARACTER	2	LCCXLCCAPCR5_SASID	
1504	(5E0)	CHARACTER	8	LCCXLCCAPCR5_4	CR4
1504	(5E0)	CHARACTER	4	LCCXLCCAPCR5_PINS	
1508	(5E4)	CHARACTER	2	LCCXLCCAPCR5_AX	
1510	(5E6)	CHARACTER	2	LCCXLCCAPCR5_PASID	
1512	(5E8)	CHARACTER	8	LCCXLCCAPCR5_5	CR5
1512	(5E8)	CHARACTER	4	LCCXLCCAPCR5_5H	CR 5 high half
1516	(5EC)	CHARACTER	4	LCCXLCCAPCR5_5L	CR 5 low half
1520	(5F0)	CHARACTER	8	LCCXLCCAPCR5_6	CR6
1528	(5F8)	CHARACTER	8	LCCXLCCAPCR5_7	CR7
1528	(5F8)	CHARACTER	4	LCCXLCCAPCR5_7H	CR 7 high half
1532	(5FC)	CHARACTER	4	LCCXLCCAPCR5_7L	CR 7 low half

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1536	(600)	CHARACTER	8	LCCXLCCAPCR5_8	CR8
1536	(600)	CHARACTER	4	LCCXLCCAPCR5_8H	CR 8 high half
1540	(604)	CHARACTER	4	LCCXLCCAPCR5_8L	CR 8 low half
1540	(604)	CHARACTER	2	LCCXLCCAPCR5_EAX	EAX in CR8
1544	(608)	CHARACTER	8	LCCXLCCAPCR5_9	CR9
1552	(610)	CHARACTER	8	LCCXLCCAPCR5_A	CR 10
1560	(618)	CHARACTER	8	LCCXLCCAPCR5_B	CR 11
1568	(620)	CHARACTER	8	LCCXLCCAPCR5_C	CR 12
1576	(628)	CHARACTER	8	LCCXLCCAPCR5_D	CR 13
1584	(630)	CHARACTER	8	LCCXLCCAPCR5_E	CR 14
1592	(638)	CHARACTER	8	LCCXLCCAPCR5_F	CR 15
1592	(638)	CHARACTER	4	LCCXLCCAPCR5_FH	CR 15 high half
1596	(63C)	CHARACTER	4	LCCXLCCAPCR5_FL	CR 15 low half
1600	(640)	CHARACTER	128	LCCXLCCARCRS	8-byte CRs
1600	(640)	CHARACTER	8	LCCXLCCARCR_0	CR0
1608	(648)	CHARACTER	8	LCCXLCCARCR_1	CR1
1616	(650)	CHARACTER	8	LCCXLCCARCR_2	CR2
1624	(658)	CHARACTER	16	LCCXLCCARCR_XM	CR3/4
1624	(658)	CHARACTER	8	LCCXLCCARCR_3	CR3
1624	(658)	CHARACTER	4	LCCXLCCARCR_3H	CR3 high half
1628	(65C)	CHARACTER	4	LCCXLCCARCR_3L	CR3 low half
1628	(65C)	CHARACTER	2	LCCXLCCARCR_3KM	
1630	(65E)	CHARACTER	2	LCCXLCCARCR_3SASID	
1632	(660)	CHARACTER	8	LCCXLCCARCR_4	CR4
1632	(660)	CHARACTER	4	LCCXLCCARCR_4H	CR4 high half
1636	(664)	CHARACTER	4	LCCXLCCARCR_4L	CR4 low half
1636	(664)	CHARACTER	2	LCCXLCCARCR_4AX	
1638	(666)	CHARACTER	2	LCCXLCCARCR_4PASID	
1640	(668)	CHARACTER	8	LCCXLCCARCR_5	CR5
1648	(670)	CHARACTER	8	LCCXLCCARCR_6	CR6
1656	(678)	CHARACTER	8	LCCXLCCARCR_7	CR7
1664	(680)	CHARACTER	8	LCCXLCCARCR_8	CR8
1664	(680)	CHARACTER	4	LCCXLCCARCR_8H	CR 8 high half
1668	(684)	CHARACTER	4	LCCXLCCARCR_8L	CR 8 low half
1668	(684)	CHARACTER	2	LCCXLCCARCR_EAX	EAX in CR8
1672	(688)	CHARACTER	8	LCCXLCCARCR_9	CR9
1680	(690)	CHARACTER	8	LCCXLCCARCR_A	CR 10
1688	(698)	CHARACTER	8	LCCXLCCARCR_B	CR 11
1696	(6A0)	CHARACTER	8	LCCXLCCARCR_C	CR 12
1704	(6A8)	CHARACTER	8	LCCXLCCARCR_D	CR 13
1712	(6B0)	CHARACTER	8	LCCXLCCARCR_E	CR 14
1720	(6B8)	CHARACTER	8	LCCXLCCARCR_F	CR 15
1720	(6B8)	CHARACTER	4	LCCXLCCARCR_FH	CR 15 high half
1724	(6BC)	CHARACTER	4	LCCXLCCARCR_FL	CR 15 low half
1728	(6C0)	CHARACTER	4	LCCXID	Acronym

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1732	(6C4)	CHARACTER	6	LCCXR6C4	Reserved
1738	(6CA)	CHARACTER	2	LCCXDIAG6CA	Reserved for IBM use
1740	(6CC)	SIGNED	2	LCCX_RR_COUNT_DOWN	round robin count down Round robin is the technique used by the dispatcher to provide specific help to equal priority workloads. The value can be a negative number (see LCCX_RR_Count_Down_k* constants)
1742	(6CE)	CHARACTER	2	LCCXLCCAPER C	PER code
1744	(6D0)	CHARACTER	8	LCCXLCCAPER A	PER address
1744	(6D0)	CHARACTER	4	LCCXLCCAPER A03	PER address 0-3
1748	(6D4)	ADDRESS	4	LCCXLCCAPER A47	PER address 4-7
1752	(6D8)	CHARACTER	8	LCCXLCCAPVAD	Translation exception address (from 168-175)
1760	(6E0)	CHARACTER	8	LCCXLCCAPTE1	Translation exception address analogous to LCCAPTE1
1768	(6E8)	CHARACTER	8	LCCXLCCAPTE3	Translation exception address analogous to LCCAPTE3
1776	(6F0)	CHARACTER	8	LCCXLCCAPTE5	Translation exception address analogous to LCCAPTE5
1784	(6F8)	CHARACTER	16	LCCXLCCASRXM	CROSS MEMORY SAVE AREA FOR STOP/RESET AND SRB STATUS SAVE/RESTORE/MODIFY ROUTINES.
1784	(6F8)	CHARACTER	8	*	
1792	(700)	CHARACTER	8	LCCXLCCASRTK	HOLDS SSARTO TOKEN FOR STOP/RESET.
1800	(708)	ADDRESS	8	LCCXRSMCP ELEM@	Pointer to this CPU's RSM CpTb1 cache-line area.
1808	(710)	CHARACTER	40	LCCXR710	
1848	(738)	UNSIGNED	4	LCCX_SPIN_DIAG	Count of DIAG 9C's issued to this CPU.
1852	(73C)	UNSIGNED	4	LCCX_BASE_SPIN_DIAG	Base value, set by WLM.
1856	(740)	CHARACTER	8	LCCX_NATIVE_CPU_TIME(4)	Normalized CPU time for work intended to run on this CPU in timer units.
1888	(760)	CHARACTER	8	LCCX_NATIVE_BASE_CPU_TIME(4)	Base value, set by WLM.
1920	(780)	ADDRESS	4	LCCXAWUQ	Pointer to AWUQ_Node this processor is assigned to
1924	(784)	ADDRESS	4	LCCXWUQ	Pointer to WUQ this processor dispatches work from
1928	(788)	UNSIGNED	4	LCCX_CPU_YIELD	Count of yields issued by this CPU.
1932	(78C)	UNSIGNED	4	LCCX_BASE_CPU_YIELD	Base value, set by WLM.
1936	(790)	UNSIGNED	4	LCCX_GENERIC_HELP_TOKEN	Token when generic help was last recognized as needed by this processor
1940	(794)	SIGNED	4	LCCXRCAL	The recalculation timer used to determine when a CPU should execute the need help recalculation logic. OWNERSHIP: SUPERVISOR
1944	(798)	CHARACTER	8	LCCX_BASE_WAIT_TIME	Base value for LCCAWTIM Ownership: SRM
1952	(7A0)	ADDRESS	4	LCCX_SIGP_COUNT_ADDR	The address of a 4 byte counter that holds the total number of SIGPs done by this CPU that contribute to LPAR overheads
1956	(7A4)	CHARACTER	4	LCCXR7A4	Reserved



Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1960	(7A8)	ADDRESS	4	LCCX_CPU_EXCLUDED_ADDR	CPUs that are excluded during need help processing. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. Ownership: Supervisor
1964	(7AC)	ADDRESS	4	LCCX_CPU_EXCLUDED_PARTIAL_ADDR	Partial exclusion mask CPUs excluded during need help processing, except CPUs with higher priority level. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. OWNERSHIP: SUPERVISOR
1968	(7B0)	BITSTRING	4	LCCX_CPU_EXCLUDED_BITMASK_SUMMARY	A bitmask summarizing which 64-bit CPU blocks have been populated in the exclude and partial exclude block. Current support depends on this value being 4 bytes. Ownership: Supervisor
1972	(7B4)	ADDRESS	4	LCCX_CORE_ADDR	The CORE data structure for this thread. There is 1 CORE control block per core, and all threads on a core point to the same CORE block. This field will be non-zero when PROCVIEW CORE was specified on hardware that supports MT. Otherwise, this field will be zero.
1976	(7B8)	ADDRESS	4	LCCXLCEB	Ptr to the LCEB
1980	(7BC)	ADDRESS	4	LCCXLCCC	Ptr to the LCCC
1984	(7C0)	ADDRESS	4	LCCX_PERFINSTBB_ADDR	
1988	(7C4)	ADDRESS	4	LCCX_SIGP_BLOCK_ADDR	
1992	(7C8)	ADDRESS	4	LCCX_NHLP_OTHER_CTRS_ADDR	
1996	(7CC)	ADDRESS	4	LCCX_PREV_OTHER_CTRS_ADDR	
2000	(7D0)	ADDRESS	4	LCCXECCC	External Logical CPU Counter block.
2004	(7D4)	ADDRESS	4	LCCXECCC_PREV	External Logical CPU Counter previous block. This is not a programming interface. Use LCCXECCC instead.
2008	(7D8)	ADDRESS	4	LCCX_TXCOUNTS_CURRADDR	The address of the current LCCC transaction diagnostic counters. This field will be non-zero when PROCVIEW CORE was specified on hardware that supports MT. Otherwise, this field will be zero.
2012	(7DC)	ADDRESS	4	LCCX_TXCOUNTS_PREVADDR	The address of the previous LCCC transaction diagnostic counters. This field will be non-zero when PROCVIEW CORE was specified on hardware that supports MT. Otherwise, this field will be zero.
2016	(7E0)	ADDRESS	4	LCCX_WORKINST_COUNTSADDR	The address of the workload instrumentation count block. This field will be non-zero when WORKINST=YES was specified. Otherwise, this field will be zero.
2020	(7E4)	CHARACTER	68	LCCXR7E4	Reserved 110@LBD
2088	(828)	CHARACTER	8	LCCXT0BPWAE	
2088	(828)	SIGNED	4	LCCXT0BPWAW0	Part of LccxTobPWAE
2092	(82C)	SIGNED	4	LCCXT0BPWAW1	Processor work area. Serialization - disablement on the processor.
2096	(830)	CHARACTER	48	LCCXDIAG830	Reserved for IBM use 28@LBD
2144	(860)	CHARACTER	8	LCCX_NH_SAVEAREA	Register save area for need help processing

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2152	(868)	SIGNED	4	LCCX_NHTM_AT_RCAL_UPDATE	The NHTM timer value at the time RCAL is updated. In another word, this value is the CPU time that this CPU has run, consecutively or not, since the last RCAL update. By subtracting this value from the RCAL, we will know whether the RCAL timer popped OWNERSHIP: SUPERVISOR
2156	(86C)	SIGNED	4	LCCX_GH_LEVEL	The giving help level of this CPU 00000000: no priority 00010000: AWUQ_PRIORITY_LEVEL_1 00100000: AWUQ_PRIORITY_LEVEL_2 00110000: AWUQ_PRIORITY_LEVEL_3 01000000: AWUQ_PRIORITY_LEVEL_4 Only the last byte of the word is used. The values are the AWUQ_PRIORITY_LEVEL_xxx values plus AWUQ_Mask_Byte_Size
2160	(870)	CHARACTER	104	LCCXR870	Reserved
2264	(8D8)	CHARACTER	16	LCCXR8D8	Reserved
2280	(8E8)	CHARACTER	8	LCCX_DFMSMCRYPTOTIME	The cumulative amount of time DFSMS spent in cryptographic operations on this CPU Ownership: DFSMS Serialization: disablement on the processor
2288	(8F0)	CHARACTER	8	LCCX_DFMSMCRYPTOTIME_BASE	Base value for delta calculations on LCCX_DfmsmCryptoTime Ownership: WLM Serialization: disablement on the processor
2296	(8F8)	CHARACTER	8	LCCX_TOD_WTI_START	The TOD z/OS honored the last WTI request
2304	(900)	CHARACTER	8	LCCX_TOD_WTI_END	The TOD z/OS was resumed after the WTI completed
2312	(908)	CHARACTER	8	LCCX_TIMEPARKED	The amount of time a CPU was parked. This value contains the official parked time (meaning accounted for by EEXT waking up and adding the last official time parked into LCCX_TimeParked_Official) plus the time since this CPU was last parked. WLM updates this time parked value regularly while the CPU is parked. Ownership: WLM & Supervisor Serialization: Compare and Swap
2320	(910)	CHARACTER	8	LCCX_TIMEPARKED_OFFICIAL	The official amount of time this CPU has been parked. This value is updated when a parked CPU wakes up in EEXT due to a SIGP, EMS signal, or unpark. For a parked CPU, this value grows less accurate the longer the CPU remains parked without being woken up. Once the parked CPU is woken up, this value is updated. Ownership: Supervisor
2320	(910)	CHARACTER	7	*	
2327	(917)	CHARACTER	1	LCCX_TIMEPARKED_OFFICIAL_BYTE7	
		1111 111.		*	
		.... ...1		LCCX_TIMEPARKED_OFFICIAL_EST	
					WLM will estimate parked time for a parked CPU when this bit is ON. Bit is set ON in Dispatcher (after LCCX_TOD_CPU_Parked is set) as the CPU is parked and enters a wait. Bit is set OFF in IEAVEEX3 (IEAVEEXT) and IEA0DS1B (IEAVEDS0) when the parked CPU comes out of the wait (when setting LCCX_TIMEPARKED_OFFICIAL).

Table 678. Structure LCCX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2328	(918)	CHARACTER	8	LCCX_TOD_CPU_PARKED	A timestamp when this CPU was last parked
2336	(920)	CHARACTER	8	LCCX_TOD_CPU_UNPARKED	A timestamp when this CPU was last unparked
2344	(928)	UNSIGNED	2	LCCX_MINOR_HPWUQ_COUNT_DOWN	In VCM=YES a countdown value from LCCX_Minor_HPWUQ_Count_Down_From to 0. When this value reaches 0 on CPs, the external FLIH needs to check the HPWUQ.
2346	(92A)	UNSIGNED	2	LCCX_MINOR_HPWUQ_COUNT_DOWN_FROM	In VCM=YES the value to initialize LCCX_Minor_HPWUQ_Count_Down to when the countdown reaches 0
2348	(92C)	UNSIGNED	2	LCCX_NORMAL_TO_SHORT_MINOR_CONV	The normal minor to short minor conversion factor for this CPU. When this CPU has normal minors, the value in this field represents how many short minors would have occurred during this CPU's normal minor. If this CPU has short minors, the value is 1 because no conversion factor is needed.
2350	(92E)	CHARACTER	2	LCCXR92E	Reserved
2352	(930)	CHARACTER	8	LCCX_ENTITLE_WITHDRAWN	Amount of time that this zIIP may use to run CP work
2360	(938)	SIGNED	4	LCCX_NHTM_BASE_ENTITLE	The NHTM timer value for entitlement
2364	(93C)	UNSIGNED	2	LCCX_RELUCTANT_HELP_COUNTDOWN	When this CPU is reluctantly helping, the number of times to give help serially before helping concurrently
2366	(93E)	CHARACTER	2	LCCXR93E	Reserved
2368	(940)	CHARACTER	8	LCCX_TIMERDIE_CPUTIME	Accumulated time
2376	(948)	UNSIGNED	8	LCCX_SYSTRCBUF_COUNT	Sytem trace buffer counts
2384	(950)	CHARACTER	8	LCCX_TOD_CPU_ONLINE	Timestamp when this CPU last came online
2392	(958)	CHARACTER	168	LCCXR958	reserved
2560	(A00)	CHARACTER	256	LCCX_RWBLOCK_A00_AFF	Read / Write cache line from location +A00 to +AFF
2560	(A00)	CHARACTER	256	LCCX_VRS0T015	VRs 0-15 (PC FLIH).
2816	(B00)	CHARACTER	256	LCCX_RWBLOCK_B00_BFF	Read / Write cache line from location +B00 to +BFF. Fields in this block are updated by the owning CPU but read by other CPUs.
2816	(B00)	UNSIGNED	2	LCCX_WAIT_SEQNUM	Sequence number that is incremented when a CPU goes into a wait.
2818	(B02)	CHARACTER	254	LCCXR802	Reserved
3072	(C00)	CHARACTER	0	LCCX_END	End of mapping

Table 679. Constants for IHALCCX

Len	Type	Value	Name	Description
4	CHARACTER	LCCX	LCCXIDCHARS	
2	DECIMAL	1	LCCX_RR_COUNT_DOWN_KLASTHELPCOUNT	
2	DECIMAL	0	LCCX_RR_COUNT_DOWN_KENDHELPCOUNT	
2	DECIMAL	-1	LCCX_RR_COUNT_DOWN_KCONTINUEHELP	

Table 679. Constants for IHALCCX (continued)

Len	Type	Value	Name	Description
2	DECIMAL	-2	LCCX_RR_COUNT_DOWN_KSTOPHELPNEXTDISP	
4	DECIMAL	0	LCCX_ASSERT_EQ1_1	
4	DECIMAL	0	LCCX_ASSERT_EQ2_1	Ensure the LCCX ends on a QWORD boundary 70@LBD

Table 680. Cross Reference for IHALCCX

Name	Offset	Hex Tag
LCCX	0	
LCCX_BASE_CPU_YIELD	78C	
LCCX_BASE_SPIN_DIAG	73C	
LCCX_BASE_WAIT_TIME	798	
LCCX_CORE_ADDR	7B4	
LCCX_CPU_EXCLUDED_ADDR	7A8	
LCCX_CPU_EXCLUDED_BITMASK_SUMMARY	7B0	
LCCX_CPU_EXCLUDED_PARTIAL_ADDR	7AC	
LCCX_CPU_YIELD	788	
LCCX_DFMSCRYPTOTIME	8E8	
LCCX_DFMSCRYPTOTIME_BASE	8F0	
LCCX_END	C00	
LCCX_ENTITLE_WITHDRAWN	930	
LCCX_GENERIC_HELP_TOKEN	790	
LCCX_GH_LEVEL	86C	
LCCX_MINOR_HPWUQ_COUNT_DOWN	928	
LCCX_MINOR_HPWUQ_COUNT_DOWN_FROM	92A	
LCCX_NATIVE_BASE_CPU_TIME	760	
LCCX_NATIVE_CPU_TIME	740	
LCCX_NH_SAVEAREA	860	
LCCX_NHLP_OTHER_CTRS_ADDR	7C8	
LCCX_NHTM_AT_RCAL_UPDATE	868	
LCCX_NHTM_BASE_ENTITLE	938	
LCCX_NORMAL_TO_SHORT_MINOR_CONV	92C	
LCCX_PERFINSTBB_ADDR	7C0	
LCCX_PREV_OTHER_CTRS_ADDR	7CC	
LCCX_RELUCTANT_HELP_COUNTDOWN	93C	
LCCX_RR_COUNT_DOWN	6CC	
LCCX_RWBLOCK_A00_AFF	A00	
LCCX_RWBLOCK_B00_BFF	B00	
LCCX_SIGP_BLOCK_ADDR	7C4	
LCCX_SIGP_COUNT_ADDR	7A0	
LCCX_SPIN_DIAG	738	

Table 680. Cross Reference for IHALCCX (continued)

Name	Offset	Hex Tag
LCCX_SYSTRCBUF_COUNT	948	
LCCX_TIMEPARKED	908	
LCCX_TIMEPARKED_OFFICIAL	910	
LCCX_TIMEPARKED_OFFICIAL_BYTE7	917	
LCCX_TIMEPARKED_OFFICIAL_EST	917	01
LCCX_TIMERDIE_CPUTIME	940	
LCCX_TOD_CPU_ONLINE	950	
LCCX_TOD_CPU_PARKED	918	
LCCX_TOD_CPU_UNPARKED	920	
LCCX_TOD_WTI_END	900	
LCCX_TOD_WTI_START	8F8	
LCCX_TXCOUNTS_CURRADDR	7D8	
LCCX_TXCOUNTS_PREVADDR	7DC	
LCCX_VRS0T015	A00	
LCCX_WAIT_SEQNUM	B00	
LCCX_WORKINST_COUNTSADDR	7E0	
LCCXAWUQ	780	
LCCXDIAG6CA	6CA	
LCCXDIAG830	830	
LCCXECCC	7D0	
LCCXECCC_PREV	7D4	
LCCXFPWA	0	
LCCXID	6C0	
LCCXLCCAPCR4	540	
LCCXLCCAPCR4_A	590	
LCCXLCCAPCR4_B	598	
LCCXLCCAPCR4_C	5A0	
LCCXLCCAPCR4_D	5A8	
LCCXLCCAPCR4_E	5B0	
LCCXLCCAPCR4_EAX	584	
LCCXLCCAPCR4_F	5B8	
LCCXLCCAPCR4_FH	5B8	
LCCXLCCAPCR4_FL	5BC	
LCCXLCCAPCR4_XM	558	
LCCXLCCAPCR4_0	540	
LCCXLCCAPCR4_0H	540	
LCCXLCCAPCR4_0L	544	
LCCXLCCAPCR4_1	548	
LCCXLCCAPCR4_2	550	

Table 680. Cross Reference for IHALCCX (continued)

Name	Offset	Hex Tag
LCCXLCCAPCR4_3	558	
LCCXLCCAPCR4_4	560	
LCCXLCCAPCR4_5	568	
LCCXLCCAPCR4_6	570	
LCCXLCCAPCR4_7	578	
LCCXLCCAPCR4_8	580	
LCCXLCCAPCR4_8H	580	
LCCXLCCAPCR4_8L	584	
LCCXLCCAPCR4_9	588	
LCCXLCCAPCR5	5C0	
LCCXLCCAPCR5_A	610	
LCCXLCCAPCR5_AX	5E4	
LCCXLCCAPCR5_B	618	
LCCXLCCAPCR5_C	620	
LCCXLCCAPCR5_D	628	
LCCXLCCAPCR5_E	630	
LCCXLCCAPCR5_EAX	604	
LCCXLCCAPCR5_F	638	
LCCXLCCAPCR5_FH	638	
LCCXLCCAPCR5_FL	63C	
LCCXLCCAPCR5_KM	5DC	
LCCXLCCAPCR5_PASID	5E6	
LCCXLCCAPCR5_PINS	5E0	
LCCXLCCAPCR5_SASID	5DE	
LCCXLCCAPCR5_SINS	5D8	
LCCXLCCAPCR5_XM	5D8	
LCCXLCCAPCR5_0	5C0	
LCCXLCCAPCR5_0H	5C0	
LCCXLCCAPCR5_0L	5C4	
LCCXLCCAPCR5_1	5C8	
LCCXLCCAPCR5_1H	5C8	
LCCXLCCAPCR5_1L	5CC	
LCCXLCCAPCR5_2	5D0	
LCCXLCCAPCR5_2H	5D0	
LCCXLCCAPCR5_2L	5D4	
LCCXLCCAPCR5_3	5D8	
LCCXLCCAPCR5_4	5E0	
LCCXLCCAPCR5_5	5E8	
LCCXLCCAPCR5_5H	5E8	

Table 680. Cross Reference for IHALCCX (continued)

Name	Offset	Hex Tag
LCCXLCCAPCR5_5L	5EC	
LCCXLCCAPCR5_6	5F0	
LCCXLCCAPCR5_7	5F8	
LCCXLCCAPCR5_7H	5F8	
LCCXLCCAPCR5_7L	5FC	
LCCXLCCAPCR5_8	600	
LCCXLCCAPCR5_8H	600	
LCCXLCCAPCR5_8L	604	
LCCXLCCAPCR5_9	608	
LCCXLCCAPERA	6D0	
LCCXLCCAPERA03	6D0	
LCCXLCCAPERA47	6D4	
LCCXLCCAPERC	6CE	
LCCXLCCAPTE1	6E0	
LCCXLCCAPTE3	6E8	
LCCXLCCAPTE5	6F0	
LCCXLCCAPVAD	6D8	
LCCXLCCAP64H1	200	
LCCXLCCAP64H2	240	
LCCXLCCAP64H3	280	
LCCXLCCAP64H4	2C0	
LCCXLCCAP64H5	300	
LCCXLCCARCR_A	690	
LCCXLCCARCR_B	698	
LCCXLCCARCR_C	6A0	
LCCXLCCARCR_D	6A8	
LCCXLCCARCR_E	6B0	
LCCXLCCARCR_EAX	684	
LCCXLCCARCR_F	6B8	
LCCXLCCARCR_FH	6B8	
LCCXLCCARCR_FL	6BC	
LCCXLCCARCR_XM	658	
LCCXLCCARCR_0	640	
LCCXLCCARCR_1	648	
LCCXLCCARCR_2	650	
LCCXLCCARCR_3	658	
LCCXLCCARCR_3H	658	
LCCXLCCARCR_3KM	65C	
LCCXLCCARCR_3L	65C	

Table 680. Cross Reference for IHALCCX (continued)

Name	Offset	Hex Tag
LCCXLCCARCR_3SASID	65E	
LCCXLCCARCR_4	660	
LCCXLCCARCR_4AX	664	
LCCXLCCARCR_4H	660	
LCCXLCCARCR_4L	664	
LCCXLCCARCR_4PASID	666	
LCCXLCCARCR_5	668	
LCCXLCCARCR_6	670	
LCCXLCCARCR_7	678	
LCCXLCCARCR_8	680	
LCCXLCCARCR_8H	680	
LCCXLCCARCR_8L	684	
LCCXLCCARCR_9	688	
LCCXLCCARCRS	640	
LCCXLCCARG64H	340	
LCCXLCCASRTK	700	
LCCXLCCASRXM	6F8	
LCCXLCCC	7BC	
LCCXLCEB	7B8	
LCCXPPSW16_1	380	
LCCXPPSW16_2	390	
LCCXPPSW16_3	3A0	
LCCXPPSW16_5	3B0	
LCCXRB02	B02	
LCCXRCAL	794	
LCCXRSMCPELEM@	708	
LCCXR4C0	4C0	
LCCXR490	490	
LCCXR6C4	6C4	
LCCXR7A4	7A4	
LCCXR7E4	7E4	
LCCXR710	710	
LCCXR8D8	8D8	
LCCXR870	870	
LCCXR92E	92E	
LCCXR93E	93E	
LCCXR958	958	
LCCXT0BPWAE	828	
LCCXT0BPWAW0	828	



Table 680. Cross Reference for IHALCCX (continued)

Name	Offset	Hex Tag
LCCXT0BPWAW1	82C	
LCCXTXPG641	0	
LCCXTXPG641_H	0	
LCCXTXPG641_L	40	
LCCXTXPG642	80	
LCCXTXPG642_H	80	
LCCXTXPG642_L	C0	
LCCXTXPG643	100	
LCCXTXPG643_H	100	
LCCXTXPG643_L	140	
LCCXTXPG644	180	
LCCXTXPG644_H	180	
LCCXTXPG644_L	1C0	
LCCXTXPG645	3C0	
LCCXTXPG645_H	3C0	
LCCXTXPG645_L	400	
LCCXTXPPSW16_1	440	
LCCXTXPPSW16_2	450	
LCCXTXPPSW16_3	460	
LCCXTXPPSW16_4	470	
LCCXTXPPSW16_5	480	
LCCXWUQ	784	

## IHALCCXO information

### IHALCCXO heading information

<b>Common name:</b>	Extended Status Saving Work Area
<b>Macro ID:</b>	IHALCCXO
<b>DSECT name:</b>	LCCXO
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	LCCX Offset: X'6C0' Length: 4
<b>Storage attributes:</b>	Subpool: 239 Key: 0 Residency: Above 16M
<b>Size:</b>	LCCXO -- X'0720' bytes
<b>Created by:</b>	IEAVNIPO (ipl CPU), IEEVCPRA (other CPU)

**Pointed to by:** LCCALCCX (virtual)  
LCCALCXR (real)

**Serialization:** Disablement

**Function:** Maps the area used for extended status saving things

## IHALCCXO mapping

Table 681. Structure LCCXO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1824	LCCXO	
0	(0)	CHARACTER	512	LCCX0FPWA	The FPWA is mapped here
512	(200)	CHARACTER	64	LCCX0LCCAP64H1	Program FLIH recursion 64-bit GPR high-order half savearea 1
576	(240)	CHARACTER	64	LCCX0LCCAP64H2	Program FLIH mainline 64-bit GPR high-order half savearea 2
640	(280)	CHARACTER	64	LCCX0LCCAP64H3	Program FLIH recursion MC access 64-bit GPR high-order half savearea 3
704	(2C0)	CHARACTER	64	LCCX0LCCAP64H4	Program FLIH 64-bit GPR high-order half savearea 4
768	(300)	CHARACTER	64	LCCX0LCCAP64H5	Program FLIH recursion 64-bit GPR high-order half savearea 5
832	(340)	CHARACTER	64	LCCX0LCCARG64H	Restart FLIH 64-bit GPR high-order half savearea
896	(380)	CHARACTER	64	LCCX0R380	Reserved
960	(3C0)	CHARACTER	128	LCCX0LCCAPCR1	8-byte CRs
1088	(440)	CHARACTER	128	LCCX0LCCAPCR2	8-byte CRs
1216	(4C0)	CHARACTER	128	LCCX0LCCAPCR3	8-byte CRs
1344	(540)	CHARACTER	128	LCCX0LCCAPCR4	8-byte CRs
1472	(5C0)	CHARACTER	128	LCCX0LCCAPCR5	8-byte CRs
1600	(640)	CHARACTER	128	LCCX0LCCARCRS	8-byte CRs
1728	(6C0)	CHARACTER	4	LCCX0ID	Acronym
1732	(6C4)	CHARACTER	4	*	Reserved
1736	(6C8)	CHARACTER	6	*	Reserved
1742	(6CE)	CHARACTER	2	LCCX0LCCAPERC	PER code
1744	(6D0)	CHARACTER	8	LCCX0LCCAPERA	PER address
1744	(6D0)	CHARACTER	4	LCCX0LCCAPERA03	PER address 0-3
1748	(6D4)	ADDRESS	4	LCCX0LCCAPERA47	PER address 4-7
1752	(6D8)	CHARACTER	8	LCCX0LCCAPVAD	Translation exception address (from 168-175)
1760	(6E0)	CHARACTER	8	LCCX0LCCAPTE1	Translation exception address analogous to LCCAPTE1
1768	(6E8)	CHARACTER	8	LCCX0LCCAPTE3	Translation exception address analogous to LCCAPTE3
1776	(6F0)	CHARACTER	8	LCCX0LCCAPTE5	Translation exception address analogous to LCCAPTE5
1784	(6F8)	CHARACTER	40	*	Reserved
1824	(720)	CHARACTER	0	*	End of mapping

Table 682. Constants for IHALCCXO

Len	Type	Value	Name	Description
4	CHARACTER	LCCX	LCCX0IDCHARS	

Table 683. Cross Reference for IHALCCXO

Name	Offset	Hex Tag
LCCX0	0	
LCCX0FPWA	0	
LCCX0ID	6C0	
LCCX0LCCAPCR1	3C0	
LCCX0LCCAPCR2	440	
LCCX0LCCAPCR3	4C0	
LCCX0LCCAPCR4	540	
LCCX0LCCAPCR5	5C0	
LCCX0LCCAPERA	6D0	
LCCX0LCCAPERA03	6D0	
LCCX0LCCAPERA47	6D4	
LCCX0LCCAPERC	6CE	
LCCX0LCCAPTE1	6E0	
LCCX0LCCAPTE3	6E8	
LCCX0LCCAPTE5	6F0	
LCCX0LCCAPVAD	6D8	
LCCX0LCCAP64H1	200	
LCCX0LCCAP64H2	240	
LCCX0LCCAP64H3	280	
LCCX0LCCAP64H4	2C0	
LCCX0LCCAP64H5	300	
LCCX0LCCARCRS	640	
LCCX0LCCARG64H	340	
LCCX0R380	380	

## IHALCCXT information

### IHALCCXT heading information

<b>Common name:</b>	LCCA Extension (LCCX) Vector Table
<b>Macro ID:</b>	IHALCCXT
<b>DSECT name:</b>	LCCXVT
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	LCCXVT Offset: -8 Length: 8
<b>Storage attributes:</b>	Subpool: 245 Key: 0
<b>Size:</b>	CVTMAXMP+1 LCCXT00P Entries

**Created by:** IEAVNIPO  
**Pointed to by:** ECVTLCXT field of the ECVT data area  
**Serialization:** None  
**Function:** Contains address of LCCX for each processor.

## IHALCCXT mapping

Table 684. Structure LCCXVT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LCCXVT	
0	(0)	ADDRESS	4	LCCXT00P	- ADDRESS OF LCCX FOR CPU 0. There are CVTMAXMP+1 entries. Do not reference entries beyond CVTMAXMP+1.
4	(4)	ADDRESS	4	LCCXT01P	- ADDRESS OF LCCX FOR CPU 1
8	(8)	ADDRESS	4	LCCXT02P	- ADDRESS OF LCCX FOR CPU 2
12	(C)	ADDRESS	4	LCCXT03P	- ADDRESS OF LCCX FOR CPU 3
16	(10)	ADDRESS	4	LCCXT04P	- ADDRESS OF LCCX FOR CPU 4
20	(14)	ADDRESS	4	LCCXT05P	- ADDRESS OF LCCX FOR CPU 5
24	(18)	ADDRESS	4	LCCXT06P	- ADDRESS OF LCCX FOR CPU 6
28	(1C)	ADDRESS	4	LCCXT07P	- ADDRESS OF LCCX FOR CPU 7
32	(20)	ADDRESS	4	LCCXT08P	- ADDRESS OF LCCX FOR CPU 8
36	(24)	ADDRESS	4	LCCXT09P	- ADDRESS OF LCCX FOR CPU 9
40	(28)	ADDRESS	4	LCCXT10P	- ADDRESS OF LCCX FOR CPU 10
44	(2C)	ADDRESS	4	LCCXT11P	- ADDRESS OF LCCX FOR CPU 11
48	(30)	ADDRESS	4	LCCXT12P	- ADDRESS OF LCCX FOR CPU 12
52	(34)	ADDRESS	4	LCCXT13P	- ADDRESS OF LCCX FOR CPU 13
56	(38)	ADDRESS	4	LCCXT14P	- ADDRESS OF LCCX FOR CPU 14
60	(3C)	ADDRESS	4	LCCXT15P	- ADDRESS OF LCCX FOR CPU 15
64	(40)	ADDRESS	4	LCCXT16_31P(16)	- Addresses OF LCCXs for CPUs 16 to 31
128	(80)	ADDRESS	4	LCCXT32_63P(32)	- Addresses OF LCCXs for CPUs 32 to 63
256	(100)	ADDRESS	4	LCCXT64_127P(64)	- Addresses OF LCCXs for CPUs 64 - 127
512	(200)	DBL WORD	8	LCCXTEND(0)	- END OF LCCXT. There are CVTMAXMP+1 entries. Do not reference entries beyond CVTMAXMP+1

Table 685. Cross Reference for IHALCCXT

Name	Offset	Hex Tag
LCCXTEND	200	
LCCXT00P	0	
LCCXT01P	4	
LCCXT02P	8	
LCCXT03P	C	
LCCXT04P	10	
LCCXT05P	14	
LCCXT06P	18	

Table 685. Cross Reference for IHALCCXT (continued)

Name	Offset	Hex Tag
LCCXT07P	1C	
LCCXT08P	20	
LCCXT09P	24	
LCCXT10P	28	
LCCXT11P	2C	
LCCXT12P	30	
LCCXT13P	34	
LCCXT14P	38	
LCCXT15P	3C	
LCCXT16_31P	40	
LCCXT32_63P	80	
LCCXT64_127P	100	
LCCXVT	0	

## IHALDAX information

### IHALDAX programming interface information

The following field is **NOT** programming interface information:

- LDAX\_GetmainsHomeSpace

### IHALDAX heading information

<b>Common name:</b>	VSM Local Data Area Extension
<b>Macro ID:</b>	IHALDAX
<b>DSECT name:</b>	LDAX
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	LDAX Offset: 0 Length: 4
<b>Storage attributes:</b>	Residency: Nucleus for ASID=1
<b>Size:</b>	X'0080' bytes LDAX -- X'0080' bytes
<b>Created by:</b>	IEAMSWCB, IEAVEMRQ
<b>Pointed to by:</b>	ASSBLDAX
<b>Serialization:</b>	LOCAL lock
<b>Function:</b>	Contains information about address space related virtual storage

## IHALDAX mapping

Table 686. Structure LDAX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LDAX	
0	(0)	CHARACTER	8	LDAX_HEADER	
0	(0)	CHARACTER	4	LDAX_ID	
4	(4)	BITSTRING	1	LDAX_VERSION	
5	(5)	CHARACTER	3		
8	(8)	ADDRESS	4	LDAX_LDAASCB	Address of ASCB FOR THIS ADDRESS SPACE
12	(C)	ADDRESS	4	LDAX_LDASTRTA	Low addr of Region
16	(10)	SIGNED	4	LDAX_LDASIZA	Size of Region
20	(14)	ADDRESS	4	LDAX_LDAESTRA	Low addr of extended Region
24	(18)	SIGNED	4	LDAX_LDAESIZA	Size of extended Region
28	(1C)	ADDRESS	4	LDAX_LDACRGTP	Current high address of PRIVATE AREA Region
32	(20)	ADDRESS	4	LDAX_LDAERGTP	Current high address of EXTENDED PRIVATE AREA Region
36	(24)	ADDRESS	4	LDAX_LDALIMIT	< 16M V=V Region limit value
40	(28)	ADDRESS	4	LDAX_LDAVVRG	< 16M V=V Region high value
44	(2C)	ADDRESS	4	LDAX_LDAELIM	> 16M V=V Region limit value
48	(30)	ADDRESS	4	LDAX_LDAEVVRG	> 16M V=V Region high value
52	(34)	SIGNED	4	LDAX_LDALOAL	< 16M USER Region alloc value
56	(38)	SIGNED	4	LDAX_LDAHIAL	< 16M AUTH Region alloc value
60	(3C)	SIGNED	4	LDAX_LDAELOAL	> 16M USER Region alloc value
64	(40)	SIGNED	4	LDAX_LDAEHIAL	> 16M AUTH Region alloc value
68	(44)	CHARACTER	16	LDAX_TCTVALUS	TCT Water marks
68	(44)	SIGNED	4	LDAX_TCTHWM	< 16M max virt stor in SWA and LSQA
72	(48)	SIGNED	4	LDAX_TCTLWM	< 16M max virt stor in user subpools
76	(4C)	SIGNED	4	LDAX_TCTEHWM	> 16M max virt stor in SWA and LSQA
80	(50)	SIGNED	4	LDAX_TCTELWM	> 16M max virt stor in user subpools
84	(54)	ADDRESS	4	LDAX_CURHIGHBOT	< 16M Cur bot Auth area
88	(58)	ADDRESS	4	LDAX_CUREHIGHBOT	> 16M Cur bot EAuth area
92	(5C)	ADDRESS	4	LDAX_LDASMA	Storage Management Area
96	(60)	ADDRESS	4	LDAX_LDASMSZ	Storage Management Size
100	(64)	CHARACTER	4		Unused
104	(68)	SIGNED	8	LDAX_OBTAINSHOMESPACE	Monotonically increasing count of getmain or storage obtain requests in the home space. Serialized by AGSI
104	(68)	CHARACTER	8	LDAX_OBTAINSHOMESPACECHAR	
112	(70)	CHARACTER	16		Reserved
128	(80)	CHARACTER	1	LDAX_END(0)	Reserved
128	(80)	X'C4C1E7'	0	LDAX_KID	"C'LDAX'"
128	(80)	X'1'	0	LDAX_KVERSION	"1"
128	(80)	X'80'	0	LDAX_LEN	"*-LDAX"

Table 687. Cross Reference for IHALDAX

Name	Offset	Hex Tag
LDAX	0	

Table 687. Cross Reference for IHALDAX (continued)

Name	Offset	Hex Tag
LDAX_CUREHIGHBOT	58	
LDAX_CURHIGHBOT	54	
LDAX_END	80	
LDAX_HEADER	0	
LDAX_ID	0	
LDAX_KID	80	C4C1E7
LDAX_KVERSION	80	1
LDAX_LDAASCB	8	
LDAX_LDACRGTP	1C	
LDAX_LDAEHIAL	40	
LDAX_LDAELIM	2C	
LDAX_LDAELOAL	3C	
LDAX_LDAERGTP	20	
LDAX_LDAESIZA	18	
LDAX_LDAESTRA	14	
LDAX_LDAEVVRG	30	
LDAX_LDAHIAL	38	
LDAX_LDALIMIT	24	
LDAX_LDALOAL	34	
LDAX_LDASIZA	10	
LDAX_LDASMAD	5C	
LDAX_LDASMSZ	60	
LDAX_LDASTRTA	C	
LDAX_LDAVVRG	28	
LDAX_LEN	80	80
LDAX_OBTAINSHOMESPACE	68	
LDAX_OBTAINSHOMESPACECHAR	68	
LDAX_TCTEHWM	4C	
LDAX_TCTELWM	50	
LDAX_TCTHWM	44	
LDAX_TCTLWM	48	
LDAX_TCTVALUS	44	
LDAX_VERSION	4	

## IHALFTE information

### IHALFTE heading information

**Common name:** Linkage First Table Entry

**Macro ID:** IHALFTE

**DSECT name:** LFTE

**Owning component:** Supervisor Control (SC1C5)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: Above-16M

**Size:** LFTE -- X'0004' bytes

**Created by:** The Linkage First Table is created by IEAVXMAS during initialization of the PC/AUTH address space. The entry table connect service creates linkage tables for non-system connections. Entry contents are changed by the entry table connect and disconnect service routines (IEAVXECO/IEAVXEDI).

**Pointed to by:** The linkage first table is pointed to by the ASCB field ascbtlov (virtual address) and the ASTE field ASTE1LFTD (real address). The ASTELFTD field also contains the length of the table.

**Serialization:** Local lock of the PC/Auth address space

**Function:** Describes an entry in the linkage first table. Each address space will be connected to a linkage first table in the PC/Auth LSQA

## Constants for IHALFTE

Table 688. Constants for IHALFTE

Len	Type	Value	Name	Description
4	HEX	7FFFFFF0	LFTELSTR_MASK	
4	HEX	80000000	LFTEINVALID_MASK	
4	DECIMAL	64	LFTESPERLFTUNIT	
4	DECIMAL	12	LFTBOUNDARY_LOG	LFT must be on a 2**8 (256) byte boundary but it must also be in contiguous real, so since we get a "page" we make sure to start on a page boundary.
4	DECIMAL	4096	LFTBOUNDARY	LFT must be on a 2**8 (256) byte boundary but it must also be in contiguous real, so since we get a "page" we make sure to start on a page boundary.
4	DECIMAL	256	LFTUNITSIZE	
4	DECIMAL	1024	LFTESPERLFT	
4	DECIMAL	4096	LFTLEN	We always get 1-page for the LFT. Architecturally, it could be larger, but we do not support that.



## IHALOCKI information

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### IHALOCKI programming interface information

IHALOCKI is a programming interface.

### IHALOCKI heading information

<b>Common name:</b>	Lock Instrumentation Data
<b>Macro ID:</b>	IHALOCKI
<b>DSECT name:</b>	LockInst_Comm, LockInst_Uniq_CML
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	LKCM, LKUN Offset: 0, 0 Length: 4, 4
<b>Storage attributes:</b>	Main Storage: ESQA / ENUCLEUS Virtual Storage: ESQA / ENUCLEUS Auxiliary Storage: N/A Subpool: 245 / NA Key: 0 Data Space: N/A Residency: 31 bit.
<b>Size:</b>	LockInst_Comm -- X'0028' bytes LockInst_Uniq_CML -- X'0040' bytes
<b>Created by:</b>	IEAVEMRQ IEAMSWCB IEAVESLA
<b>Pointed to by:</b>	LockInst_Comm is pointed to by: ASSB_SMFCMS_LockInst_Addr ASSB_ENQDEQ_CMS_LockInst_Addr ASSB_LATCH_CMS_LockInst_Addr ASSB_CMS_LockInst_Addr ASSB_Local_LockInst_Addr ECVT_SMF_CMS_LockInst_Addr ECVT_ENQDEQ_CMS_LockInst_Addr ECVT_LATCH_CMS_LockInst_Addr ECVT_CMS_LockInst_Addr LockInst_Uniq_CML is pointed to by: LockInst_Comm_Unique_Lock_Data_Addr when LockInst_Comm_LockType = LockInst_LockType_Local
<b>Serialization:</b>	Data updates to the lock instrumentation blocks are serialized by one of the following mechanisms: The lock the instrumentation block represents. Compare and Swap See individual fields for how updates are serialized. Data reads should be done unserialized.
<b>Function:</b>	Maps suspend lock instrumentation data.

## IHALOCKI mapping

Table 689. Structure LOCKINST\_COMM

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LOCKINST_COMM	
0	(0)	CHARACTER	4	LOCKINST_COMM_ACRONYM	Acronym
4	(4)	SIGNED	4	LOCKINST_COMM_VERSION	Version number
8	(8)	SIGNED	2	LOCKINST_COMM_LENGTH	Length of block
10	(A)	SIGNED	2	LOCKINST_COMM_LOCKTYPE	The type of lock this lock instrumentation block represents. See EQUs for LockInst_LockType_*. Available with version LockInst_Comm_Version_Number1 and above. Serialization: N/A (none)
12	(C)	ADDRESS	4	LOCKINST_COMM_UNIQUE_LOCK_DATA_ADDR	A pointer to an area which contains information unique to the lock represented by this LockInst_Comm block. If there is no data associated with this lock, this pointer will be zero. Available with version LockInst_Comm_Version_Number1 and above. Serialization: N/A (none)
16	(10)	CHARACTER	24	LOCKINST_COMM_LOCKSTATS	Lock statistics
16	(10)	SIGNED	8	LOCKINST_COMM_SUSPENDS	The number of times a unit of work was suspended on this lock. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
24	(18)	SIGNED	8	LOCKINST_COMM_ALREADY_SUSPENDED	The number of times a unit of work was suspended on this lock when there was already at least 1 other unit of work suspended for the lock. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
32	(20)	CHARACTER	8	LOCKINST_COMM_CONT_TIME	The amount of time in a TOD clock format of all units of work that were suspended on this lock. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
32	(20)	X'1'	0	LOCKINST_LOCKTYPE_MIN	"1" Note the LockInst_LockType_Min can change from release to release. LockInst_LockType_Min is the lowest lock type supported for a given release.
32	(20)	X'1'	0	LOCKINST_LOCKTYPE_SMFCMS	"1"
32	(20)	X'2'	0	LOCKINST_LOCKTYPE_ENQDEQCMS	"2"
32	(20)	X'3'	0	LOCKINST_LOCKTYPE_LATCHCMS	"3"
32	(20)	X'4'	0	LOCKINST_LOCKTYPE_CMS	"4"
32	(20)	X'5'	0	LOCKINST_LOCKTYPE_LOCAL	"5"

Table 689. Structure LOCKINST\_COMM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
32	(20)	X'5'	0	LOCKINST_LOCKTYPE_MAX	"5" Note the LockInst_LockType_Max can change from release to release. LockInst_LockType_Max is the largest lock type supported for a given release. ***** ***** **** If the number of CMS locks or local locks changes, please update IHAHW981. ***** *****
32	(20)	X'D2C3D4'	0	LOCKINST_COMM_ACRONYM_CHARS	"C'LKCM"
32	(20)	X'1'	0	LOCKINST_COMM_CURR_VERSION_NUMBER	"1"
32	(20)	X'1'	0	LOCKINST_COMM_VERSION_NUMBER1	"1"
32	(20)	X'2E8'	0	LOCKINST_ASSB_SMFCMS_OFFSET	"744"
32	(20)	X'2EC'	0	LOCKINST_ASSB_ENQDEQ_OFFSET	"748"
32	(20)	X'2F0'	0	LOCKINST_ASSB_LATCH_OFFSET	"752"
32	(20)	X'2F4'	0	LOCKINST_ASSB_CMS_OFFSET	"756"
32	(20)	X'2F8'	0	LOCKINST_ASSB_LOCAL_OFFSET	"760"
32	(20)	X'28'	0	LOCKINST_COMM_LEN	"*-LockInst_Comm"

Table 690. Structure LOCKINST\_UNIQ\_CML

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LOCKINST_UNIQ_CML	
0	(0)	CHARACTER	4	LOCKINST_UNIQ_CML_ACRONYM	Acronym
4	(4)	SIGNED	4	LOCKINST_UNIQ_CML_VERSION	Version number
8	(8)	SIGNED	2	LOCKINST_UNIQ_CML_LENGTH	Length of block
10	(A)	SIGNED	2	LOCKINST_UNIQ_CML_LOCKTYPE	The type of unique lock this lock instrumentation block represents. The LockType between LockInst_Comm_LockType and LockInst_Uniq_CML_LockType are equal. See EQUs for LockInst_Uniq_LockType_Local. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: N/A (none)
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	24	LOCKINST_UNIQ_CML_LOCKSTATS	Lock statistics

Table 690. Structure LOCKINST\_UNIQ\_CML (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	SIGNED	8	LOCKINST_UNIQ_CML_SUSPENDS	The number of times a unit of work from some other address space was suspended for this address space's local lock. This count represents the cumulative number of times a unit of work from another address space was suspended when requesting the CML lock of this address space. LockInst_Comm_Suspends + LockInst_Uniq_CML_Suspends is the total number of suspends on this address space's local lock. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
24	(18)	SIGNED	8	LOCKINST_UNIQ_CML_ALREADY_SUSPENDED	The number of times a unit of work from some other address space was suspended for this address space's local lock. This count represents the cumulative number of times a unit of work from another address space was suspended and there was already another unit of work waiting for that lock. LockInst_Comm_Already_Suspended + LockInst_Uniq_CML_Already_Suspended is the total number of times a unit of work was suspended for this address space's local lock and there was already another unit of work waiting for the lock. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
32	(20)	CHARACTER	8	LOCKINST_UNIQ_CML_CONT_TIME	The cumulative amount of time in a TOD clock format a unit of work from some other address space was suspended for this address space's local lock. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. LockInst_Comm_Cont_Time + LockInst_Uniq_CML_Cont_Time is the total time suspended on this address space's local lock. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
40	(28)	SIGNED	8	LOCKINST_UNIQ_CML_SUSPENDS_SRC	The cumulative number of times a unit of work from this address space (source) was suspended for another address space's local lock. This count represents the cumulative number of times a unit of work from this address space was suspended when requesting the CML lock of another address space. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: CS
48	(30)	SIGNED	8	LOCKINST_UNIQ_CML_ALREADY_SUSPENDED_SRC	

Table 690. Structure LOCKINST\_UNIQ\_CML (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					The cumulative number of times a unit of work from this address space (source) was suspended for another address space's local lock and there was another unit of work already suspended on that lock. This count represents the cumulative number of times a unit of work from this address space was suspended when requesting the CML lock of another address space and there was already a unit of work suspended on that CML lock. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: CS
56	(38)	CHARACTER	8	LOCKINST_UNIQ_CML_CONT_TIME_SRC	The cumulative amount of time in a TOD clock format of all units of work that originated from this address space and were suspended on a different address space's local lock. This time represents the total time units of work from this address space were suspended for requesting the CML lock of another address space. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: CS
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_MIN	"5" Note the LockInst_Uniq_LockType_Min can change from release to release. LockInst_Uniq_LockType_Min is the lowest lock type supported for a given release.
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_LOCAL	"5"
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_MAX	"5" Note the LockInst_Uniq_LockType_Max can change from release to release. LockInst_Uniq_LockType_Max is the largest lock type supported for a given release.
56	(38)	X'D2E4D5'	0	LOCKINST_UNIQ_CML_ACRONYM_CHARS	"C' LKUN' "
56	(38)	X'1'	0	LOCKINST_UNIQ_CML_CURR_VERSION_NUMBER	"1"
56	(38)	X'1'	0	LOCKINST_UNIQ_CML_VERSION_NUMBER1	"1"
56	(38)	X'4'	0	LOCKINST_NUM_CMSLOCKS	"4" Number of CMS locks
56	(38)	X'1'	0	LOCKINST_NUM_LOCALLOCKS	"1" Number of local locks
56	(38)	X'1'	0	LOCKINST_NUM_UNIQUECMLLOCKS	"1" Number of unique CML locks
56	(38)	X'40'	0	LOCKINST_UNIQ_CML_LEN	"*-LockInst_Uniq_CML"

Table 691. Cross Reference for IHALOCKI

Name	Offset	Hex Tag
LOCKINST_ASSB_CMS_OFFSET	20	2F4

Table 691. Cross Reference for IHALOCKI (continued)

Name	Offset	Hex Tag
LOCKINST_ASSB_ENQDEQ_OFFSET	20	2EC
LOCKINST_ASSB_LATCH_OFFSET	20	2F0
LOCKINST_ASSB_LOCAL_OFFSET	20	2F8
LOCKINST_ASSB_SMFCMS_OFFSET	20	2E8
LOCKINST_COMM	0	
LOCKINST_COMM_ACRONYM	0	
LOCKINST_COMM_ACRONYM_CHARS	20	D2C3D4
LOCKINST_COMM_ALREADY_SUSPENDED	18	
LOCKINST_COMM_CONT_TIME	20	
LOCKINST_COMM_CURR_VERSION_NUMBER	20	1
LOCKINST_COMM_LEN	20	28
LOCKINST_COMM_LENGTH	8	
LOCKINST_COMM_LOCKSTATS	10	
LOCKINST_COMM_LOCKTYPE	A	
LOCKINST_COMM_SUSPENDS	10	
LOCKINST_COMM_UNIQUE_LOCK_DATA_ADDR	C	
LOCKINST_COMM_VERSION	4	
LOCKINST_COMM_VERSION_NUMBER1	20	1
LOCKINST_LOCKTYPE_CMS	20	4
LOCKINST_LOCKTYPE_ENQDEQCMS	20	2
LOCKINST_LOCKTYPE_LATCHCMS	20	3
LOCKINST_LOCKTYPE_LOCAL	20	5
LOCKINST_LOCKTYPE_MAX	20	5
LOCKINST_LOCKTYPE_MIN	20	1
LOCKINST_LOCKTYPE_SMFCMS	20	1
LOCKINST_NUM_CMSLOCKS	38	4
LOCKINST_NUM_LOCALLOCKS	38	1
LOCKINST_NUM_UNIQUECMLLOCKS	38	1
LOCKINST_UNIQ_CML	0	
LOCKINST_UNIQ_CML_ACRONYM	0	
LOCKINST_UNIQ_CML_ACRONYM_CHARS	38	D2E4D5
LOCKINST_UNIQ_CML_ALREADY_SUSPENDED	18	
LOCKINST_UNIQ_CML_ALREADY_SUSPENDED_SRC	30	
LOCKINST_UNIQ_CML_CONT_TIME	20	
LOCKINST_UNIQ_CML_CONT_TIME_SRC	38	
LOCKINST_UNIQ_CML_CURR_VERSION_NUMBER	38	1
LOCKINST_UNIQ_CML_LEN	38	40
LOCKINST_UNIQ_CML_LENGTH	8	
LOCKINST_UNIQ_CML_LOCKSTATS	10	

Table 691. Cross Reference for IHALOCKI (continued)

Name	Offset	Hex Tag
LOCKINST_UNIQ_CML_LOCKTYPE	A	
LOCKINST_UNIQ_CML_SUSPENDS	10	
LOCKINST_UNIQ_CML_SUSPENDS_SRC	28	
LOCKINST_UNIQ_CML_VERSION	4	
LOCKINST_UNIQ_CML_VERSION_NUMBER1	38	1
LOCKINST_UNIQ_LOCKTYPE_LOCAL	38	5
LOCKINST_UNIQ_LOCKTYPE_MAX	38	5
LOCKINST_UNIQ_LOCKTYPE_MIN	38	5

## IHALSTE information

### IHALSTE heading information

<b>Common name:</b>	Linkage Second Table Entry
<b>Macro ID:</b>	IHALSTE
<b>DSECT name:</b>	LSTE
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above-16M
<b>Size:</b>	LSTE -- X'0008' bytes
<b>Created by:</b>	The Linkage Second Table is created by IEAVXMAS during initialization of the PC/AUTH address space. The entry table connect service creates linkage tables for non-system connections. Entry contents are changed by the entry table connect and disconnect service routines (IEAVXECO/IEAVXEDI).
<b>Pointed to by:</b>	The linkage second table is pointed to by the LFTLSTR field of IHALFTE (real address.)
<b>Serialization:</b>	Local lock of the PC/Auth address space
<b>Function:</b>	Describes an entry in the linkage second table. Each address space will be connected to a linkage second table in the PC/Auth LSQA. The linkage second table is always 32 entries on a 256-byte boundary.

### Constants for IHALSTE

Table 692. Constants for IHALSTE

Len	Type	Value	Name	Description
4	HEX	7FFFFFF0	LSTEETR_MASK	
4	HEX	0000003F	LSTEETLEN_MASK	
4	DECIMAL	32	LSTESPERLST	

Table 692. Constants for IHALSTE (continued)

Len	Type	Value	Name	Description
4	DECIMAL	256	LSTLEN	
4	HEX	80000000	LSTEINVALID_MASK	
4	DECIMAL	8	LSTBOUNDARY_LOG	LST must be on a 2**8 (256) byte boundary
4	DECIMAL	256	LSTBOUNDARY	LST must be on a 2**8 (256) byte boundary

## IHALTE information

### IHALTE heading information

<b>Common name:</b>	LINKAGE TABLE ENTRY (LTE) DESCRIPTION
<b>Macro ID:</b>	IHALTE
<b>DSECT name:</b>	LTE
<b>Owning component:</b>	PC/AUTH (SCXMS)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: SYSTEM-DETERMINED Key: 0 Residency: SYSTEM-DETERMINED
<b>Size:</b>	4 BYTES
<b>Created by:</b>	THE SYSTEM LINKAGE TABLE IS CREATED BY IEAVXMAS DURING INITIALIZATION OF THE PC/AUTH ADDRESS SPACE. THE ENTRY TABLE CONNECT SERVICE CREATES LINKAGE TABLES FOR NON-SYSTEM CONNECTIONS. ENTRY CONTENTS ARE CHANGED BY THE ENTRY TABLE CONNECT AND DISCONNECT SERVICE ROUTINES (IEAVXECO/IEAVXEDI).
<b>Pointed to by:</b>	THE LINKAGE TABLE IS POINTED TO BY THE ASCB FIELD ASCBLTOV (VIRTUAL ADDRESS) AND THE ASTE FIELD ASTELTD (REAL ADDRESS). THE ASTELTD FIELD ALSO CONTAINS THE LENGTH OF THE TABLE.
<b>Serialization:</b>	LOCAL LOCK OF THE PC /AUTH SERVICES ADDRESS SPACE.
<b>Function:</b>	DESCRIBES AN ENTRY IN THE LINKAGE TABLE. EACH ADDRESS SPACE WILL BE CONNECTED TO A LINKAGE TABLE IN THE PC/AUTH LSQA.

### IHALTE mapping

Table 693. Structure LTE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	4	LTE	LINKAGE TABLE ENTRY DESCRIPTION
0	(0)	UNSIGNED	4	LTEETR	REAL ADDRESS OF ENTRY TABLE. LENGTH IN LOW ORDER 6 BITS MUST BE ZEROED TO USE THIS AS AN ENTRY TABLE ADDRESS
0	(0)	BITSTRING	1	LTEIBYTE	FLAG CONTAINS INVALID FLAG
	1... ....			LTEINV	INVALID ENTRY FLAG



Table 693. Structure LTE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1	(1)	CHARACTER	2	*	PART OF ET ADDRESS - NOT REFERENCABLE ALONE
3	(3)	BITSTRING	1	LTEETLEN	THE NUMBER IN THE LAST SIX BITS PLUS ONE MULTIPLIED BY FOUR GIVES THE NUMBER OF ENTRIES IN THE TABLE

## IHAPPR information

### IHAPPR programming interface information

IHAPPR is a programming interface.

### IHAPPR heading information

<b>Common name:</b>	z/OS Program Parameter Register Mapping
<b>Macro ID:</b>	IHAPPR
<b>DSECT name:</b>	PPR
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	PPR -- X'0008' bytes
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	The CPU Measurement Sampling Facility produces architected sampling entries that contains a program parameter value, determined by the most recent setting of the Program Parameter Register (PPR). The format of the PPR is not architected, this maps the z/OS format for the PPR.

### IHAPPR mapping

Table 694. Structure PPR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PPR	
0	(0)	ADDRESS	4	PPR_WU_ADDR	Address of an area related to the dispatched work unit. It depends on the type of work unit. If an SRB, WU_Addr is the address of the SRB's WEB. If a task, byte 0 contains flags and bytes 1-3 contain the task's TCB address.
0	(0)	ADDRESS	4	PPR_WEB_ADDR	Applies to SRB only
0	(0)	BITSTRING	1	PPR_TASK_FLAGS	Applies to task only

Bit definitions:

Table 694. Structure PPR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		PPR_IS_WAIT	"X'80'" Set when the wait task is dispatched
		.1... ....		PPR_ZS	"X'40'" For IBM use only. Applies to task only.
1	(1)	ADDRESS	3	PPR_TCB_ADDR	Applies to task only
4	(4)	SIGNED	2	PPR_HOME_ASID	The home ASID of the work unit
Bit definitions:					
		1... ....		PPR_IS_SRB	"X'80'" Set on when the work unit dispatched is an SRB, off otherwise
6	(6)	SIGNED	2	PPR_TOKEN	A pseudo-unique identifier for this work unit.
6	(6)	BITSTRING	0	PPR_WU_ADDR_MASK_SRB	"X'7FFFFFFF8'" Use this mask to isolate the WEB address for SRB mode case
6	(6)	BITSTRING	0	PPR_WU_ADDR_MASK_TASK	"X'00FFFFFF8'" Use this mask to isolate the TCB address for task mode case
6	(6)	X'8'	0	PPR_LEN	"*-PPR"

Table 695. Cross Reference for IHAPPR

Name	Offset	Hex	Tag
PPR	0		
PPR_HOME_ASID	4		
PPR_IS_SRB	4		80
PPR_IS_WAIT	0		80
PPR_LEN	6		8
PPR_TASK_FLAGS	0		
PPR_TCB_ADDR	1		
PPR_TOKEN	6		
PPR_WEB_ADDR	0		
PPR_WU_ADDR	0		
PPR_WU_ADDR_MASK_SRB	6	FFFFFF8	
PPR_WU_ADDR_MASK_TASK	6	FFFFFF8	
PPR_ZS	0		40

## IHAPRD information

### IHAPRD programming interface information

The following fields are **NOT** programming interface information:

- PRDADSSO
- PRDTTCH

### IHAPRD heading information

**Common name:** Dump Header mapping for SVC Dump

**Macro ID:** IHAPRD

**DSECT name:** PRDINPUT

**Owning component:** SVC Dump (SCDMP)

**Eye-catcher ID:** None

**Storage attributes:** Auxiliary Storage: One per dump dataset

**Size:** 4160 bytes

**Created by:** SVC Dump (IEAVTSDH, ADYPRED)  
SADMP (AMDSADM2)

**Pointed to by:** N/A

**Serialization:** None

**Function:** IHAPRD describes the contents of dump records created by SADMP, SVC Dump, SLIP invoked SVC Dump, and SYSMDUMP. The macro defines the dump header record and symptom area, CPU status records, and general storage records.

## IHAPRD mapping

Table 696. Structure PRDINPUT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDINPUT	
0	(0)	X'80'	0	BIT0	"128"
0	(0)	X'40'	0	BIT1	"64"
0	(0)	X'20'	0	BIT2	"32"
0	(0)	X'10'	0	BIT3	"16"
0	(0)	X'8'	0	BIT4	"8"
0	(0)	X'4'	0	BIT5	"4"
0	(0)	X'2'	0	BIT6	"2"
0	(0)	X'1'	0	BIT7	"1"
0	(0)	CHARACTER	8	PRDMODNM	NAME OF PGM REQUESTING DUMP
8	(8)	CHARACTER	8	PRDTODVL	CLOCK VALUE AT TIME OF DUMP
16	(10)	CHARACTER	8	PRDCPU(0)	PROCESSOR IDENTIFICATION
16	(10)	CHARACTER	1	PRDPVRSN	PROCESSOR VERSION CODE IN HEX
17	(11)	CHARACTER	3	PRDPSERL	PROCESSOR SERIAL NUMBER IN HEX
20	(14)	CHARACTER	2	PRDPMODL	PROCESSOR MODEL NUMBER IN HEX
22	(16)	CHARACTER	2	PRDPCPU@	PHYSICAL CPU ADDRESS IN HEX
24	(18)	CHARACTER	100	PRDTITLE	TITLE FROM DUMP
124	(7C)	CHARACTER	8	PRDDSPB	TIME SYSTEM SET NON-DISPATCHABLE
132	(84)	CHARACTER	8	PRDDSPE	TIME SYSTEM RESET DISPATCHABLE
140	(8C)	CHARACTER	8	PRDSNAME	SYSTEM NAME
148	(94)	CHARACTER	12		RESERVED - Aligns PRSDRSN
160	(A0)	CHARACTER	16	PRSDRSN	SVC Dump reason code (only for SVC dump captured dumps)
176	(B0)	SIGNED	4	PRSDBLK	Number of blocks in a captured dump (est. for auto alloc)
180	(B4)	CHARACTER	16	PRDPRODNI	Product name
196	(C4)	CHARACTER	2	PRDPRODV	Product version

Table 696. Structure PRDINPUT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
198	(C6)	CHARACTER	2	PRDPRODR	Product release
200	(C8)	CHARACTER	2	PRDPRODM	Product modification
202	(CA)	CHARACTER	1	PRDPRODD	Product development level
203	(CB)	CHARACTER	1	PRDPRFL1	Flags
		1... ..		PRDPPDMP	"BIT0" Post processed dump
204	(CC)	CHARACTER	8	PRDBEA	Breaking Event Address Register
212	(D4)	CHARACTER	46		RESERVED
258	(102)	SIGNED	2	PRDADSS0	Offset of ADSS
260	(104)	CHARACTER	16	PRDXMP16	16-byte analog of PRDXMPSW
276	(114)	CHARACTER	16	PRDPSW16	16-byte analog of PRDPSW
292	(124)	SIGNED	4	PRDSDFWD	POINTER USED FOR HEADER CHAIN

THE FOLLOWING FIELDS ARE OFFSETS TO OTHER SECTIONS OF THE HEADER ALONG WITH THE LENGTHS. IF THE OFFSET FIELD IS ZERO THEN THE CORRESPONDING SECTION DOES NOT EXIST

296	(128)	CHARACTER	16	PRDOFSET(0)	OFFSETS
296	(128)	SIGNED	2	PRSDMPO	OFFSET OF SDUMP/SYSMDUMP COMMON SECTION
298	(12A)	SIGNED	2	PRSDMPL	LENGTH OF COMMON SECTION
300	(12C)	SIGNED	2	PRDSLIPO	OFFSET OF SLIP SECTION
302	(12E)	SIGNED	2	PRDSLIPL	LENGTH OF SLIP SECTION
304	(130)	SIGNED	2	PRDSYSMO	OFFSET OF SYSMDUMP SECTION
306	(132)	SIGNED	2	PRDSYSML	LENGTH OF SYSMDUMP SECTION
308	(134)	SIGNED	2	PRSDSWAO	OFFSET OF SDWA FOR THIS DUMP
310	(136)	SIGNED	2	PRSDSWAL	LENGTH OF SDWA
312	(138)	CHARACTER	50	PRDCID	CALLER'S ID
362	(16A)	SIGNED	2	PRDINTKO	Offset of incident token If 0, no incident token exists

Table 697. Structure PRSDSWA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRSDSWA	, SDWA FOR THIS DUMP

Table 698. Structure PRSDSM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRSDSM	
0	(0)	CHARACTER	4	PRDCVT	VIRTUAL ADDRESS OF CVT
4	(4)	CHARACTER	1	PRDFLG1	Flag byte
		1... ..		PRDME	"BIT0" ESAME mode
		.1.. ....		PRDVGPRF	"BIT1" 64-bit SVC Dump regs on entry
		.1.. ....		PRDMESET	"BIT1" For SADMP, on if dump was taken by a level of SADMP which sets PRDME
		..1. ....		PRDLGPRF	"BIT2" 64-bit SLIP regs on entry
		...1 ....		PRDMGPRF	"BIT3" 64-bit SYSMDUMP regs at error
5	(5)	CHARACTER	1		RESERVED
6	(6)	CHARACTER	10	PRDERRID	ERRORID ASSOCIATED WITH DUMP

Table 698. Structure PRDSDSM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	CHARACTER	44	PRDDSNAM	DSN TO WHICH DUMP WAS TAKEN
60	(3C)	CHARACTER	18	PRDXM(0)	CROSS MEMORY STATUS INFO WHEN SDUMP WAS INVOKED
60	(3C)	CHARACTER	4	PRDCML	ASCB ADDRESS OF CML ASID
64	(40)	CHARACTER	8	PRDXMP SW	PSW WHEN SDUMP WAS INVOKED
72	(48)	SIGNED	2	PRDPASID	PRIMARY ASID
74	(4A)	SIGNED	2	PRDSASID	SECONDARY ASID
76	(4C)	SIGNED	2	PRDHASID	HOME ASID
78	(4E)	SIGNED	2	PRDWASID	SDWA OWNERS ASID
80	(50)	SIGNED	4	PRDSADDR	ADDRESS WHERE SDWA EXISTED
84	(54)	SIGNED	4	PRDTTCH(0)	POINTER TO TRACE TABLE CONTROL HDR
84	(54)	SIGNED	4	PRDPSAAD	If non-zero, the absolute address of an MVS PSA which SADMP used to locate other MVS control blocks.
88	(58)	SIGNED	2	PRSDPO	OFFSET OF SVC DUMP PARM LIST
90	(5A)	SIGNED	2	PRSDPL	LENGTH OF SVC DUMP PARM LIST
92	(5C)	SIGNED	2	PRSDOPO	OFFSET OF SDUMP OPTIONS LIST
94	(5E)	SIGNED	2	PRSDOPL	LENGTH OF SDUMP OPTIONS LIST
96	(60)	SIGNED	4	PRDTCB	POINTER TO TCB OF TASK WHICH REQUESTED THE DUMP
100	(64)	CHARACTER	3	PRDDIDCO	DUMP ID USED FOR MESSAGES AND TO IDENTIFY THE DUMP TO THE OPERATOR
103	(67)	CHARACTER	1		RESERVED
104	(68)	CHARACTER	428	PRDCPUST(0)	CPU STATUS SECTION
104	(68)	CHARACTER	428	PRDREGS(0)	REGISTERS
104	(68)	CHARACTER	32		Unused
136	(88)	CHARACTER	64	PRDGPR	GPR'S UPON ENTERING SDUMP
200	(C8)	CHARACTER	64	PRDCR	Used only in special IPCS code
264	(108)	CHARACTER	8	PRDPSW	CALLERS PSW BEFORE SDUMP
272	(110)	CHARACTER	64	PRDAR	ACCESS REGS UPON ENTERING SDUMP
336	(150)	CHARACTER	128	PRDFPR	FPR'S UPON ENTERING SDUMP
464	(1D0)	CHARACTER	4	PRDFPCR	FPCR
468	(1D4)	CHARACTER	4		RESERVED
472	(1D8)	SIGNED	4	(0)	
472	(1D8)	CHARACTER	64	PRDG64H	G64H UPON ENTERING SDUMP
536	(218)	CHARACTER	128	PRDC64S	ESAME CRs at SDUMP entry
664	(298)	SIGNED	4	PRDCSA	START OF COMMON STORAGE
668	(29C)	SIGNED	4	PRDEPVT	END OF COMMON STORAGE
672	(2A0)	CHARACTER	8	PRDHJOBNAME	PRDHASID JOBNAME
680	(2A8)	CHARACTER	8	PRDHVSS	START OF HIGH VIRTUAL SHARED AREA
688	(2B0)	CHARACTER	8	PRDHVHP	START OF HIGH VIRTUAL HIGH PRIVATE AREA
696	(2B8)	CHARACTER	8	PRDHVCO	High Virtual Common Origin
704	(2C0)	SIGNED	4	PRDTTCH2	Pointer to the trace table control header of the SNAPTRC which was issued by SDUMP when the system is reset to dispatchable prematurely

Table 699. Structure PRSDPDM

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PRSDPDM	, SDUMP PARM LIST IN BITS

Table 700. Structure PRSDOPS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PRSDOPS	, SDUMP OPTIONS IN BITS

Table 701. Structure PRDSLIP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PRDSLIP	
0	(0)	CHARACTER	8	PRDSLPSW	PSW WHEN SLIP WAS ENTERED
8	(8)	CHARACTER	8	PRDSLBEA	BEAR when SLIP was Entered
16	(10)	CHARACTER	64	PRDSLGP	GPR'S WHEN SLIP WAS ENTERED
80	(50)	CHARACTER	64	PRDSLAR	ACCESS REGISTERS WHEN SLIP WAS ENTERED
144	(90)	CHARACTER	64	(0)	Was PRDSLCP
144	(90)	DBL WORD	8	PRDSLPC3	CONTROL REG 3
152	(98)	DBL WORD	8	PRDSLPC4	CONTROL REG 4
160	(A0)	CHARACTER	16	PRDSL16	16-byte PSW
176	(B0)	CHARACTER	32		Reserved
208	(D0)	CHARACTER	64	PRDSL6H	High halves of GPRs when SLIP was entered
272	(110)	CHARACTER	128	PRSLC64	ESAME CRs when SLIP WAS ENTERED

Table 702. Structure PRDSYSMD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	PRDSYSMD	
0	(0)	CHARACTER	4	PRDSMABD	ABEND CODE FOR THE ERROR
4	(4)	CHARACTER	8	PRDSMPSW	PSW AT ENTRY TO ABEND
12	(C)	CHARACTER	8	PRDSMLMN	NAME OF ACTIVE LOAD MODULE AT TIME OF ERROR
20	(14)	SIGNED	4	PRDSMLMA	@ 0F active load module. X'7FFFFBAD' if above 2G. Kept for compatibility only. See PRDSMLMA64.
24	(18)	SIGNED	4	PRDSMLMO	OFFSET INTO ACTIVE LOAD MODULE POINTED TO BY PSW
28	(1C)	CHARACTER	12	PRDSMPDA	DATA AT PSW @ (6+ 6-)
40	(28)	CHARACTER	64	PRDSMGPR	GPR'S AT TIME OF ERROR
104	(68)	CHARACTER	4	PRDSMRSN	REASON CODE FOR THE ERROR
108	(6C)	CHARACTER	64	PRDSMAR	AR'S AT TIME OF ERROR
172	(AC)	CHARACTER	8	PRDSMBEA	BEAR AT TIME OF ERROR
180	(B4)	CHARACTER	32		Unused
212	(D4)	CHARACTER	8	PRDSMLMA64	64-bit@ of active load module
220	(DC)	CHARACTER	16	PRDSMPSW16	PSW AT ENTRY TO ABEND
236	(EC)	CHARACTER	64	PRDSMG6H	High halves of GPRs at time of error
300	(12C)	CHARACTER	128	PRDSMC64	ESAME CRs

Table 703. Structure PRDINTKD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDINTKD	
0	(0)	CHARACTER	32	PRDINTKN	Incident token

Table 704. Cross Reference for IHAPRD

Name	Offset	Hex	Tag
BIT0	0		80
BIT1	0		40
BIT2	0		20
BIT3	0		10
BIT4	0		8
BIT5	0		4
BIT6	0		2
BIT7	0		1
PRDADSS0	102		
PRDAR	110		
PRDBEA	CC		
PRDCID	138		
PRDCML	3C		
PRDCPU	10		
PRDCPUST	68		
PRDCR	C8		
PRDCSA	298		
PRDCVT	0		
PRDC64S	218		
PRDDIDCO	64		
PRDDSNAM	10		
PRDDSPB	7C		
PRDDSPE	84		
PRDEPVT	29C		
PRDERRID	6		
PRDFLG1	4		
PRDFPCR	1D0		
PRDFPR	150		
PRDGPR	88		
PRDG64H	1D8		
PRDHASID	4C		
PRDHJOB	2A0		
PRDHVCO	2B8		
PRDHVHP	2B0		

Table 704. Cross Reference for IHAPRD (continued)

Name	Offset	Hex Tag
PRDHVSS	2A8	
PRDINPUT	0	
PRDINTKD	0	
PRDINTKN	0	
PRDINTKO	16A	
PRDLGPRF	4	20
PRDME	4	80
PRDMESET	4	40
PRDMGPRF	4	10
PRDMODNM	0	
PRDOFSET	128	
PRDPASID	48	
PRDPCPU@	16	
PRDPMODL	14	
PRDPPDMP	CB	80
PRDPRFL1	CB	
PRDPRODD	CA	
PRDPRODM	C8	
PRDPRODN	B4	
PRDPRODR	C6	
PRDPRODV	C4	
PRDPSAAD	54	
PRDPSERL	11	
PRDPSW	108	
PRDPSW16	114	
PRDPVRSN	10	
PRDREGS	68	
PRDSADDR	50	
PRDSASID	4A	
PRDSDBLK	B0	
PRSDSFDWD	124	
PRSDMPL	12A	
PRSDMPO	128	
PRSDOPL	5E	
PRSDOPO	5C	
PRSDOPS	0	
PRSDPL	5A	
PRSDPM	0	
PRSDPO	58	



Table 704. Cross Reference for IHAPRD (continued)

Name	Offset	Hex Tag
PRSDRSN	A0	
PRSDSM	0	
PRSDWA	0	
PRSDWAL	136	
PRSDWAO	134	
PRSLAR	50	
PRSLBEA	8	
PRSLC64	110	
PRSLGPR	10	
PRSLG6H	D0	
PRSLIP	0	
PRSLIPL	12E	
PRSLIPO	12C	
PRSLPC3	90	
PRSLPC4	98	
PRSLPSW	0	
PRSLP16	A0	
PRDSMABD	0	
PRDSMAR	6C	
PRDSMBEA	AC	
PRDSMC64	12C	
PRDSMGPR	28	
PRDSMG6H	EC	
PRDSMLMA	14	
PRDSMLMA64	D4	
PRDSMLMN	C	
PRDSMLMO	18	
PRDSMPDA	1C	
PRDSMPSW	4	
PRDSMPSW16	DC	
PRDSMRSN	68	
PRDSNAME	8C	
PRDSYSMD	0	
PRDSYSML	132	
PRDSYSMO	130	
PRDTCB	60	
PRDTITLE	18	
PRDTODVL	8	
PRDTTCH	54	

Table 704. Cross Reference for IHAPRD (continued)

Name	Offset	Hex Tag
PRDTTCH2	2C0	
PRDVGPRF	4	40
PRDWASID	4E	
PRDXM	3C	
PRDXMPSW	40	
PRDXMP16	104	

## IHAPSAE information

### IHAPSAE programming interface information

**ONLY** the following fields are part of the programming interface information:

- FlceFacilitiesList
- FlceFacilitiesList1

### IHAPSAE heading information

<b>Common name:</b>	PSA Extension (z/Architecture)
<b>Macro ID:</b>	IHAPSAE
<b>DSECT name:</b>	FLCESAME
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	FLCESAME -- X'0200' bytes
<b>Created by:</b>	IEAVFX00 IEAVNIPO IEEVCPRP
<b>Pointed to by:</b>	The PSAE maps the storage that starts at location 0 for the related processor.
<b>Serialization:</b>	Disablement. None needed for FlceFacilitiesList/FlceFacilitiesList1
<b>Function:</b>	Maps the z/Architecture format of the first page of the PSA. This macro is automatically included when IHAPSA is included.

### IHAPSAE mapping

Table 705. Structure FLCESAME

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	FLCESAME	FLCE 0x: defined by architecture

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	8	FLCEIPPSW	FLCE 0x: IPL PSW
8	(8)	CHARACTER	8	FLCEICCW1	FLCE 8x: IPL CCW1
16	(10)	CHARACTER	8	FLCEICCW2	FLCE 10x: IPL CCW1
24	(18)	CHARACTER	104	FLCER018	FLCE 18x: reserved
128	(80)	CHARACTER	4	FLCEEPARM	FLCE 80x: External interruption parameter
132	(84)	CHARACTER	2	FLCECPUAD	FLCE 84x: CPU address
134	(86)	CHARACTER	2	FLCEEICODE	FLCE 86x: External interruption code
136	(88)	CHARACTER	4	FLCESDATA	FLCE 88x: Additional SVC interruption data
136	(88)	CHARACTER	2	FLCESDATABYTE0	FLCE 88x:
136	(88)	CHARACTER	1		FLCE 88x: Reserved
137	(89)	BITSTRING	1	FLCESILC	FLCE 89x: SVC interruption length code
Bit definitions:					
		.... .111		FLCESILCB	"X'07'" FLCE 89x: Significant bits in ILC. Last bit is always zero
138	(8A)	CHARACTER	2	FLCESICODE	FLCE 8Ax: SVC interruption code
140	(8C)	CHARACTER	4	FLCEPDATA	FLCE 8Cx: Additional Program interruption data
140	(8C)	CHARACTER	2	FLCEPDATABYTE0	FLCE 8Cx:
140	(8C)	CHARACTER	1		FLCE 8Cx: Reserved
141	(8D)	BITSTRING	1	FLCEPILC	FLCE 8Dx: Program interruption length code
Bit definitions:					
		.... .111		FLCEPILCB	"X'07'" FLCE 8Dx: Significant bits in ILC. Last bit is always zero
142	(8E)	CHARACTER	2	FLCEPICODE	FLCE 8Ex: Program interruption code
142	(8E)	BITSTRING	1	FLCEPICODE0	FLCE 8Ex: Exception extension code
143	(8F)	BITSTRING	1	FLCEPICODE1	FLCE 8Fx: 8-bit interruption code
Bit definitions:					
		1... ....		FLCEPIPER	"X'80'" FLCE 8Fx: PER interruption code
		.1.. ....		FLCEPIMC	"X'40'" FLCE 8Fx: Monitor Call interruption code
		..11 1111		FLCEPIPC	"X'3F'" FLCE 8Fx: An unsolicited program interruption has occurred if any of these bits are on
144	(90)	CHARACTER	4	FLCEPIINFORMATION	FLCE 90x:
144	(90)	CHARACTER	3		
147	(93)	BITSTRING	1	FLCEDXC	FLCE 93x: Data exception code for PI 7
147	(93)	BITSTRING	1	FLCEVXC	FLCE 93x: Vector exception code for PI 1B
148	(94)	CHARACTER	2	FLCEMCNUM	FLCE 94x: Monitor class number
150	(96)	CHARACTER	2	FLCEPERCODE	FLCE 96x: PER code
150	(96)	BITSTRING	1	FLCEPERCODE0	FLCE 96x: Byte 0

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Bit definitions:					
		1... ....		FLCEPERSB	"X'80'" FLCE 96x: PER successful branch event
		.1.. ....		FLCEPERIF	"X'40'" FLCE 96x: PER instruction fetch event
		..1. ....		FLCEPERSA	"X'20'" FLCE 96x: PER storage alteration event
		...1 ....		FLCEPERSK	"X'10'" FLCE 96x: PER storage key alteration event
		.... 1...		FLCEPERSAR	"X'08'" FLCE 96x: PER storage alteration using real event
		.... .1..		FLCEPERZAD	"X'04'" FLCE 96x: PER zero address detection
		.... ..1.		FLCEPERTRANSACTIONEND	"X'02'"
151	(97)	BITSTRING	1	FLCEPERATMID	FLCE 97x: PER addressing and translation mode ID
Bit definitions:					
		1... ....		FLCEPERPSW4	"X'80'" FLCE 97x: PER PSW bit 4
		.1.. ....		FLCEPERATMIDVALID	"X'40'" FLCE 97x: When 1, the ATMID bits are valid
		..1. ....		FLCEPERPSW32	"X'20'" FLCE 97x: PER PSW bit 32
		...1 ....		FLCEPERPSW5	"X'10'" FLCE 97x: PER PSW bit 5
		.... 1...		FLCEPERPSW16	"X'08'" FLCE 97x: PER PSW bit 16
		.... .1..		FLCEPERPSW17	"X'04'" FLCE 97x: PER PSW bit 17
		.... ..11		FLCEPERASCEID	"X'03'" FLCE 97x: PER ASCE identification. If a storage alteration event when DAT is on, identifies the ASCE used: '00' - primary ASCE '01' - AR-specified AR. '10' - secondary ASCE '11' - home ASCE
152	(98)	CHARACTER	8	FLCEPER	FLCE 98x: PER address
152	(98)	CHARACTER	4	FLCEPERW0	FLCE 98x: PER address word 0
156	(9C)	ADDRESS	4	FLCEPERW1	FLCE 9Cx: PER address word 1
160	(A0)	BITSTRING	1	FLCEEAIID	FLCE A0x: Exception access ID (The AR number involved in the translation exception when bits 30-31 of the TEA='01'). On a PIC 2C when ALRF is installed, additional bits are set
Bit definitions:					
		1... ....		FLCEEAIID0	"X'80'" Bit 0 of EAID. Zero
		.1.. ....		FLCEEAIID1	"X'40'" Bit 1 of EAID. Zero
		..1. ....		FLCEEAIID2	"X'20'" Bit 2 of EAID. Set only when PIC 2C for PTI or for PASN translation on PR
		...1 ....		FLCEEAIID3	"X'10'" Bit 3 of EAID. Set only when PIC 2C for SSAIR or for SASN translation on PR
		.... 1111		FLCEEAIID_ARNUM	"X'0F'" AR number. Zero when Bit 1 or Bit 2 is set
161	(A1)	BITSTRING	1	FLCEPERAID	FLCE A1x: PER access ID (the access register number involved in the PER storage alteration event)

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
162	(A2)	BITSTRING	1	FLCE0PACID	FLCE A2x:
163	(A3)	CHARACTER	1	FLCEAMDID	FLCE A3x: Architecture mode ID (See FLCARCH in IHAPSA)
Bit definitions:					
		.... ...1		FLCELOEME	"X'01'" Logout is Z/Architecture
164	(A4)	CHARACTER	4	FLCER0A4	FLCE A4x: Reserved
168	(A8)	CHARACTER	8	FLCETEID	FLCE A8x: Translation exception identification
168	(A8)	CHARACTER	8	FLCETEA	FLCE A8x: Translation exception address
168	(A8)	CHARACTER	6		
174	(AE)	BITSTRING	1	FLCETEA6	FLCE AEx: Byte 6 of FlceTEA
Bit definitions:					
		.... 11..		FLCEAEFSI	"X'0C'" Access-exception Fetch/Store indicator: 00 -- not determined. 01 -- store. 10 -- fetch. 11 -- reserved
175	(AF)	BITSTRING	1	FLCETEA7	FLCE AFx: Byte 7 of FlceTEA
Bit definitions:					
		.... 1...		FLCEPEALC	"X'08'" FLCE AFx: Protection exception due to access-list control
		.... .1..		FLCESOPI	"X'04'" FLCE AFx: Suppress on protection indication
		.... ..11		FLCETEASTD	"X'03'" FLCE AFx: Segment table designation for TEA: '00' - primary STD '01' - STD was AR-qualified '10' - secondary STD '11' - home STD
168	(A8)	CHARACTER	8	FLCETEASNINFO	FLCE A8x: ASN Info
168	(A8)	CHARACTER	6		
174	(AE)	SIGNED	2	FLCETEASN	FLCE AEx: ASN
168	(A8)	CHARACTER	8	FLCETEPCINFO	FLCE A8x: PC Info
168	(A8)	CHARACTER	4		
172	(AC)	SIGNED	4	FLCEPCNUM	FLCE ACx: PC#. Bits 0-10 are 0, bit 11 is 1, and the PC# is in bits 12-31
176	(B0)	CHARACTER	8	FLCEMONITORCODE	FLCE B0x: Monitor Code
184	(B8)	CHARACTER	4	FLCESSID	FLCE B8x: Subsystem ID word
188	(BC)	CHARACTER	4	FLCEIOINTPARM	FLCE BCx: I/O interruption parameter
192	(C0)	CHARACTER	4	FLCEIOINTID	FLCE C0x: I/O interruption ID
196	(C4)	CHARACTER	4	FLCER0C4	FLCE C4x: Reserved
200	(C8)	CHARACTER	16	FLCEFACILITIESLIST	FLCE C8x: Facilities list stored by STFLE. See macro IHAFACL for a more complete definition of the facilities list. If the facilities list exceeds 256 bits, only the area mapped by IHAFACL will contain those additional bits. This 16-byte area matches the area mapped by Fac1Bytes0To15 within IHAFACL.
200	(C8)	BITSTRING	1	FLCEFACILITIESLISTBYTE0	FLCE C8x
Bit definitions:					

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		FLCEZARCHN3	"X'80'" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		1... ....		FLCEESAMEN3	"X'80'" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		.1.. ....		FLCEZARCHINSTALLED	"X'40'" The z/Architecture mode is installed on the CPU
		.1.. ....		FLCEESAMEINSTALLED	"X'40'" The z/Architecture mode is installed on the CPU
		..1. ....		FLCEZARCH	"X'20'" The z/Architecture mode is active on the CPU
		..1. ....		FLCEESAME	"X'20'" The z/Architecture mode is active on the CPU
		...1 ....		FLCEIDTEINSTALLED	"X'10'" IDTE is installed
		.... 1...		FLCEIDTECLEARINGCOMBINEDSEGMENT	"X'08'" IDTE does clearing of combined entries upon segment-table entry invalidation
		.... .1..		FLCEIDTECLEARINGCOMBINEDREGION	"X'04'" IDTE does clearing of combined entries upon region-table entry invalidation
		.... ..1.		FLCEASNANDLXREUSEINSTALLED	"X'02'" The ASN and LX reuse facility is installed on the CPU
		.... ...1		FLCESTFLE	"X'01'" STFLE instruction is available
201	(C9)	BITSTRING	1	FLCEFACILITIESLISTBYTE1	FLCE C9x
Bit definitions:					
		1... ....		FLCEEDATFEAT	"X'80'" DAT features
		.1.. ....		FLCESENSERUNNINGSTATUS	"X'40'" sense-running-status facility
		..1. ....		FLCECONDSSKEINSTALLED	"X'20'" The conditional SSKE instruction is installed
		...1 ....		FLCECONFIGURATIONTOPOLOGY	"X'10'" STSI-enhancement for configuration topology
		.... 1...		FLCECQCIF	"X'08'" 110524
		.... .1..		FLCEIPTERANGE	"X'04'" IPTE-range facility is installed
		.... ..1.		FLCENONQKEYSETTING	"X'02'" Nonquiescing key-setting facility is installed
		.... ...1		FLCEAPFT	"X'01'" The APFT facility is installed / 091111
202	(CA)	BITSTRING	1	FLCEFACILITIESLISTBYTE2	FLCE CAx
Bit definitions:					
		1... ....		FLCEETF2	"X'80'" Extended translation facility 2 is present
		.1.. ....		FLCECRYPTOASSIST	"X'40'" The cryptographic assist is present
		.1.. ....		FLCEMESSAGESECURITYASSIST	"X'40'" The message security assist is present
		..1. ....		FLCELONGDISPLACEMENT	"X'20'" The long displacement facility is installed in the z/Architecture mode

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		FLCELONGDISPLACEMENTHP	"X'10'" The long displacement facility has high performance. Bit FlceLongDisplacement will also be on.
		.... 1...		FLCEHFPMS	"X'08'" The HFP Multiply add/subtract facility is installed
		.... .1..		FLCEEXTENDEDIMMEDIATE	"X'04'" The extended immediate facility is installed in the z/Architecture mode
		.... ..1.		FLCEETF3	"X'02'" The extended translaation facility 3 is installed in the z/Architecture mode
		.... ...1		FLCEHFPUNNORMEXTENSION	"X'01'" The HFP unnormalized extension facility is installed
203	(CB)	BITSTRING	1	FLCEFACILITIESLISTBYTE3	FLCE CBx
Bit definitions:					
		1... ....		FLCEETF2E	"X'80'" ETF2 enhancement is present 031215
		.1.. ....		FLCESTCKF	"X'40'" STCKF enhancement is present
		..1. ....		FLCEPARSE	"X'20'" Parsing enhancement facility is present
		.... 1...		FLCETCSF	"X'08'" TOD clock steering facility
		.... ..1.		FLCEETF3E	"X'02'" ETF3 enhancement is present 040512
		.... ...1		FLCEECTF	"X'01'" Extract Cpu Time facility
204	(CC)	BITSTRING	1	FLCEFACILITIESLISTBYTE4	FLCE CCx
Bit definitions:					
		1... ....		FLCECSSF	"X'80'" Compare-and-swap-and-store facility
		.1.. ....		FLCECSSF2	"X'40'" Compare-and-swap-and-store facility 2
		..1. ....		FLCEGENERALINTEXTENSION	"X'20'" General-Instructions-Extension Facility
		.... 1...		FLCEENHANCEDMONITOR	"X'08'" The Enhanced Monitor facility is supported.
		.... ...1		FLCEOBSOLETECPUMEASUREMENT	"X'01'" Obsolete. Meant CPU-measurement facility supported. Use FlceCpuMeasurementCounter & FlceCpuMeasurementSampling
205	(CD)	BITSTRING	1	FLCEFACILITIESLISTBYTE5	FLCE CDx
Bit definitions:					
		1... ....		FLCESETPROGRAMPARM	"X'80'" Set-Program-Parameter facility is supported
		.1.. ....		FLCEFPSEF	"X'40'" Floating-point-support enhancement facility
		..1. ....		FLCEDFPF	"X'20'" Decimal-floating-point facility
		...1 ....		FLCEDFPFHP	"X'10'" Decimal-floating-point facility high performance
		.... 1...		FLCEPFP0	"X'08'" PFP0 instruction 070424
		.... .1..		FLCEDISTINCTOPERANDS	"X'04'" z196 is the first machine with this facility bit on.
		.... .1..		FLCEHIGHWORD	"X'04'"

Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		FLCELOADSTOREONCONDITION	"X'04'"
		.... .1..		FLCEPOPULATIONCOUNT	"X'04'"
		.... ...1		FLCECMPEF	"X'01'" Possible future enhancement
206	(CE)	BITSTRING	1	FLCEFACILITIESLISTBYTE6	FLCE CEx
Bit definitions:					
		.1.. ....		FLCEMISCINTEXT	"X'40'" Bit 49 - Miscellaneous instruction extensions facility.
		.1.. ....		FLCEEXECUTIONHINT	"X'40'" Bit 49 - Execution hint facility.
		.1.. ....		FLCELOADANDTRAP	"X'40'" Bit 49 - Load and trap facility.
		..1. ....		FLCECONSTRAINEDTX	"X'20'" Bit 50 - Constrained Transactional Execution facility. Even if this bit is on, do not use Constrained TX unless bit CVTXXC is on (you may alternately check bit PSATXXC)
		.... .1..		FLCELOADSTOREONCOND2	"X'04'" Bit 53 -
207	(CF)	BITSTRING	1	FLCEFACILITIESLISTBYTE7	FLCE CFx
Bit definitions:					
		..1. ....		FLCEMIE2	"X'20'" Bit 58
208	(D0)	BITSTRING	1	FLCEFACILITIESLISTBYTE8	FLCE D0x bits 64-71
Bit definitions:					
		1... ....		FLCERI	"X'80'" FlceRI
		.1.. ....		FLCECRYPTOAPQAI	"X'40'" Crypto AP-Queue adapter interruption
		...1 ....		FLCECPUMEASUREMENTCOUNTER	"X'10'" CPU-measurement counter facility
		.... 1...		FLCECPUMEASUREMENTSAMPLING	"X'08'" CPU-measurement sampling facility
		.... .1..		FLCESCLP	"X'04'" Possible future enhancement
		.... ..1.		FLCEAISI	"X'02'" AISI facility, bit 70
		.... ...1		FLCEAEN	"X'01'" AEN facility, bit 71
209	(D1)	BITSTRING	1	FLCEFACILITIESLISTBYTE9	FLCE D1x bits 72-79
Bit definitions:					
		1... ....		FLCEAIS	"X'80'" AIS facility, bit 72
		.1.. ....		FLCETRANSACTIONALEXECUTION	"X'40'" Bit 73 - Transactional Execution facility. Even if this bit is on, do not use TX unless bit CVTXXC is on (you may alternately check bit PSATXXC)
		.... .1..		FLCEMSA4	"X'04'" MSA4 facility, bit 77
		.... ...1.		FLCEEDAT2	"X'02'" Bit 78 - Enhanced Dat-2
210	(D2)	BITSTRING	1	FLCEFACILITIESLISTBYTEA	FLCE D2x
211	(D3)	BITSTRING	1	FLCEFACILITIESLISTBYTEB	FLCE D3x
212	(D4)	BITSTRING	1	FLCEFACILITIESLISTBYTEC	FLCE D4x
213	(D5)	BITSTRING	1	FLCEFACILITIESLISTBYTED	FLCE D5x



Table 705. Structure FLCESAME (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
214	(D6)	BITSTRING	1	FLCEFACILITIESLISTBYTEE	FLCE D6x
215	(D7)	BITSTRING	1	FLCEFACILITIESLISTBYTEF	FLCE D7x
216	(D8)	CHARACTER	16	FLCEFACILITIESLIST1	FLCE D8x: Facilities list stored by STFLE. It is valid if on z/OS 2.2 or later. See macro IHAFACL for a more complete definition of the facilities list. This 16-byte area matches the area mapped by Fac1Bytes16To31 within IHAFACL.
232	(E8)	CHARACTER	8	FLCEMCIC	FLCE E8x: Machine check interruption code
240	(F0)	CHARACTER	4	FLCEMCICE	FLCE F0x: Machine check interruption code extension
244	(F4)	CHARACTER	4	FLCEEDCODE	FLCE F4x: External damage code
248	(F8)	CHARACTER	8	FLCEFSA	FLCE F8x: Failing storage address
256	(100)	ADDRESS	8	FLCEEMFCTRRARRAYADDR	FLCE 100x: The enhanced monitor facility counter array origin
264	(108)	SIGNED	4	FLCEEMFCTRRARRAYSIZE	FLCE 108x: The enhanced monitor facility counter array dimension
268	(10C)	SIGNED	4	FLCEEMFEXCEPTIONCNT	FLCE 10Cx: The enhanced monitor facility exception count
272	(110)	CHARACTER	8	FLCEBEA	FLCE 110x: Breaking event address
280	(118)	CHARACTER	8	FLCER118	FLCE 118x: Reserved
288	(120)	CHARACTER	16	FLCEROPSW	FLCE 120x: Restart old PSW
304	(130)	CHARACTER	16	FLCEEOPSW	FLCE 130x: External old PSW
320	(140)	CHARACTER	16	FLCESOPSW	FLCE 140x: SVC old PSW
336	(150)	CHARACTER	16	FLCEPOPSW	FLCE 150x: Program old PSW
352	(160)	CHARACTER	16	FLCEMOPSW	FLCE 160x: Machine check old PSW
368	(170)	CHARACTER	16	FLCEIOPSW	FLCE 170x: I/O old PSW
384	(180)	CHARACTER	32	FLCER180	FLCE 180x: reserved
416	(1A0)	CHARACTER	16	FLCERNPSW	FLCE 1A0x: Restart new PSW
432	(1B0)	CHARACTER	16	FLCEENPSW	FLCE 1B0x: External new PSW
448	(1C0)	CHARACTER	16	FLCESNPSW	FLCE 1C0x: SVC new PSW
464	(1D0)	CHARACTER	16	FLCEPNPSW	FLCE 1D0x: Program new PSW
480	(1E0)	CHARACTER	16	FLCEMNPSW	FLCE 1E0x: Machine check new PSW
496	(1F0)	CHARACTER	16	FLCEINPSW	FLCE 1F0x: I/O new PSW
496	(1F0)	X'200'	0	FLCESAME_LEN	"*-FLCESAME"

Table 706. Cross Reference for IHAPSAE

Name	Offset	Hex Tag
FLCEAEFSI	AE	C
FLCEAEN	D0	1
FLCEAIS	D1	80
FLCEAISI	D0	2
FLCEAMDID	A3	
FLCEAPFT	C9	1
FLCEASNANDLXREUSEINSTALLED	C8	2
FLCEBEA	110	

Table 706. Cross Reference for IHAPSAE (continued)

Name	Offset	Hex Tag
FLCECMPEF	CD	1
FLCECONDSSKEINSTALLED	C9	20
FLCECONFIGURATIONONTOPOLOGY	C9	10
FLCECONSTRAINEDTX	CE	20
FLCECPUAD	84	
FLCECPUMEASUREMENTCOUNTER	D0	10
FLCECPUMEASUREMENTSAMPLING	D0	8
FLCECQCIF	C9	8
FLCECRYPTOAPQAI	D0	40
FLCECRYPTOASSIST	CA	40
FLCECSSF	CC	80
FLCECSSF2	CC	40
FLCEDFPF	CD	20
FLCEDFPFHP	CD	10
FLCEDISTINCTOPERANDS	CD	4
FLCEDXC	93	
FLCEEAIID	A0	
FLCEEAIID_ARNUM	A0	F
FLCEEAIID0	A0	80
FLCEEAIID1	A0	40
FLCEEAIID2	A0	20
FLCEEAIID3	A0	10
FLCEECTF	CB	1
FLCEEDATFEAT	C9	80
FLCEEDAT2	D1	2
FLCEEDCODE	F4	
FLCEEICODE	86	
FLCEEMFCTRARRAYADDR	100	
FLCEEMFCTRARRAYSIZE	108	
FLCEEMFEXCEPTIONCNT	10C	
FLCEENHANCEDMONITOR	CC	8
FLCEENPSW	1B0	
FLCEEOPSW	130	
FLCEEPARM	80	
FLCEESAME	C8	20
FLCEESAMEINSTALLED	C8	40
FLCEESAMEN3	C8	80
FLCEETF2	CA	80
FLCEETF2E	CB	80

Table 706. Cross Reference for IHAPSAE (continued)

Name	Offset	Hex Tag
FLCEETF3	CA	2
FLCEETF3E	CB	2
FLCEEXECUTIONHINT	CE	40
FLCEEXTENDEDIMMEDIATE	CA	4
FLCEFACILITIESLIST	C8	
FLCEFACILITIESLISTBYTEA	D2	
FLCEFACILITIESLISTBYTEB	D3	
FLCEFACILITIESLISTBYTEC	D4	
FLCEFACILITIESLISTBYTED	D5	
FLCEFACILITIESLISTBYTEE	D6	
FLCEFACILITIESLISTBYTEF	D7	
FLCEFACILITIESLISTBYTE0	C8	
FLCEFACILITIESLISTBYTE1	C9	
FLCEFACILITIESLISTBYTE2	CA	
FLCEFACILITIESLISTBYTE3	CB	
FLCEFACILITIESLISTBYTE4	CC	
FLCEFACILITIESLISTBYTE5	CD	
FLCEFACILITIESLISTBYTE6	CE	
FLCEFACILITIESLISTBYTE7	CF	
FLCEFACILITIESLISTBYTE8	D0	
FLCEFACILITIESLISTBYTE9	D1	
FLCEFACILITIESLIST1	D8	
FLCEFPSEF	CD	40
FLCEFSA	F8	
FLCEGENERALINTEXTENSION	CC	20
FLCEHFPMAS	CA	8
FLCEHFPUNNORMEXTENSION	CA	1
FLCEHIGHWORD	CD	4
FLCEICCW1	8	
FLCEICCW2	10	
FLCEIDTECLEARINGCOMBINEDREGION	C8	4
FLCEIDTECLEARINGCOMBINEDSEGMENT	C8	8
FLCEIDTEINSTALLED	C8	10
FLCEINPSW	1F0	
FLCEIOINTID	C0	
FLCEIOINTPARM	BC	
FLCEIOPSW	170	
FLCEIPPSW	0	
FLCEIPTERANGE	C9	4

Table 706. Cross Reference for IHAPSAE (continued)

Name	Offset	Hex Tag
FLCELOADANDTRAP	CE	40
FLCELOADSTOREONCONDITION	CD	4
FLCELOADSTOREONCOND2	CE	4
FLCELOEME	A3	1
FLCELONGDISPLACEMENT	CA	20
FLCELONGDISPLACEMENTHP	CA	10
FLCEMCIC	E8	
FLCEMCICE	F0	
FLCEMCNUM	94	
FLCEMESSAGESECURITYASSIST	CA	40
FLCEMIE2	CF	20
FLCEMISCINTEXT	CE	40
FLCEMNPSW	1E0	
FLCEMONITORCODE	B0	
FLCEMOPSW	160	
FLCEMSA4	D1	4
FLCENONQKEYSETTING	C9	2
FLCEOBSOLETECPUMEASUREMENT	CC	1
FLCEOPACID	A2	
FLCEPARSE	CB	20
FLCEPCNUM	AC	
FLCEPDATA	8C	
FLCEPDATABYTE0	8C	
FLCEPEALC	AF	8
FLCEPER	98	
FLCEPERAID	A1	
FLCEPERASCEID	97	3
FLCEPERATMID	97	
FLCEPERATMIDVALID	97	40
FLCEPERCODE	96	
FLCEPERCODE0	96	
FLCEPERIF	96	40
FLCEPERPSW16	97	8
FLCEPERPSW17	97	4
FLCEPERPSW32	97	20
FLCEPERPSW4	97	80
FLCEPERPSW5	97	10
FLCEPERSA	96	20
FLCEPERSAR	96	8

Table 706. Cross Reference for IHAPSAE (continued)

Name	Offset	Hex Tag
FLCEPERSB	96	80
FLCEPERSK	96	10
FLCEPERTRANSACTIONEND	96	2
FLCEPERW0	98	
FLCEPERW1	9C	
FLCEPERZAD	96	4
FLCEPFPO	CD	8
FLCEPICODE	8E	
FLCEPICODE0	8E	
FLCEPICODE1	8F	
FLCEPIINFORMATION	90	
FLCEPILC	8D	
FLCEPILCB	8D	7
FLCEPMC	8F	40
FLCEIPC	8F	3F
FLCEPIPER	8F	80
FLCEPNPSW	1D0	
FLCEPOPSW	150	
FLCEPOPULATIONCOUNT	CD	4
FLCERI	D0	80
FLCERNPSW	1A0	
FLCEROPSW	120	
FLCER0A4	A4	
FLCER0C4	C4	
FLCER018	18	
FLCER118	118	
FLCER180	180	
FLCESAME	0	
FLCESAME_LEN	1F0	200
FLCESCLP	D0	4
FLCESDATA	88	
FLCESDATABYTE0	88	
FLCESENERUNNINGSTATUS	C9	40
FLCESETPROGRAMPARM	CD	80
FLCESICODE	8A	
FLCESILC	89	
FLCESILCB	89	7
FLCESNPSW	1C0	
FLCESOPI	AF	4

Table 706. Cross Reference for IHAPSAE (continued)

Name	Offset	Hex Tag
FLCESOPSW	140	
FLCESSID	B8	
FLCESTCKF	CB	40
FLCESTFLE	C8	1
FLCETCSF	CB	8
FLCETEA	A8	
FLCETEASN	AE	
FLCETEASNINFO	A8	
FLCETEASTD	AF	3
FLCETEA6	AE	
FLCETEA7	AF	
FLCETEID	A8	
FLCETEPCINFO	A8	
FLCETRANSACTIONALEXECUTION	D1	40
FLCEVXC	93	
FLCEZARCH	C8	20
FLCEZARCHINSTALLED	C8	40
FLCEZARCHN3	C8	80

## IHAPSAX information

### IHAPSAX heading information

<b>Common name:</b>	PSA Extension (ESAME)
<b>Macro ID:</b>	IHAPSAX
<b>DSECT name:</b>	PSAX
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	PSAX -- X'1000' bytes
<b>Created by:</b>	USER
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps the architected 2nd page of the PSA. This macro is automatically included when IHAPSA is included.

## IHAPSAX mapping

Table 707. Structure THEPSAX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE IsA (PSAX)	4096	THEPSAX	
0	(0)	CHARACTER	1024	PSAXFLCX	
0	(0)	CHARACTER	432	FLCX R000	FLCX 0x: reserved
432	(1B0)	ADDRESS	8	PSAX_MCESA	FLCX 1B0x: Absolute address of machine check extended save area
432	(1B0)	CHARACTER	4	PSAX_MCESA_HW	Must be 0's
436	(1B4)	ADDRESS	4	PSAX_MCESA_LW	Low word. z/OS requires that this area be in 32-bit real. See DSGNLR. AND with PSAX_MCESA_LW_Mask
436	(1B4)	BITSTRING	3	*	Bits 32-55
439	(1B7)	BITSTRING	1	PSAX_MCESA_LW_BYTE3	
	1111 ....			*	Bits 56-59
	.... 1111			PSAX_MCESA_LC	Bits 60-63: Length Characteristic
440	(1B8)	CHARACTER	8	FLCX R1B8	FLCX 1B8x: reserved
448	(1C0)	CHARACTER	64	FLCX R1C0	FLCX 1C0x: reserved for programming
512	(200)	CHARACTER	512	FLCX MCSA	FLCX 200x: machine check or Store Status save area
512	(200)	CHARACTER	128	FLCX MCSAFPRS	FLCX 200x: FPRs
512	(200)	CHARACTER	8	FLCX MCSAFPR(0:15)	FLCX 200x: FPRs 0-15
640	(280)	CHARACTER	128	FLCX MCSAGPRS	FLCX 280x: GPRs
640	(280)	CHARACTER	8	FLCX MCSAGPR(0:15)	FLCX 280x: GPRs 0-15
768	(300)	CHARACTER	16	FLCX MCSAFLA	FLCX 300x: Fixed logout
768	(300)	CHARACTER	16	FLCX MCSAPSW	FLCX 300x: Store Status PSW
784	(310)	CHARACTER	8	FLCX R310	FLCX 310x: unused
792	(318)	ADDRESS	4	FLCX MCSAPREFIX	FLCX 318x: Store Status prefix
796	(31C)	CHARACTER	4	FLCX MCSAFPC	FLCX 31Cx: floating point control reg
800	(320)	CHARACTER	4	FLCX R320	FLCX 320x: unused
804	(324)	CHARACTER	4	FLCX MCSATODPR	FLCX 324x: TOD programmable reg
808	(328)	CHARACTER	8	FLCX MCSACPUTIMER	FLCX 328x: CPU timer
816	(330)	CHARACTER	1	FLCX R330	FLCX 330x: unused
817	(331)	CHARACTER	7	FLCX MCSACLOCKCOMPARATOR	FLCX 331X: Clock comparator bits 0-55
824	(338)	CHARACTER	8	FLCX R338	FLCX 338x: reserved
832	(340)	CHARACTER	64	FLCX MCSAARS	FLCX 340x: ARs
832	(340)	CHARACTER	4	FLCX MCSAAR(0:15)	FLCX 340x: ARs 0-15
896	(380)	CHARACTER	128	FLCX MCSACRS	FLCX 380x: CRs
896	(380)	CHARACTER	8	FLCX MCSACR(0:15)	FLCX 380x: CRs 0-15
1024	(400)	CHARACTER	256	PSAX RT1WRT1X_400	PSAX 400X:
1280	(500)	CHARACTER	256	PSAX 0500	PSAX 500X:
1280	(500)	CHARACTER	16	PSAX_CCBICB_REALADDRS	PSAX 500X:
1280	(500)	CHARACTER	8	PSAX_CCD	PSAX 500X: Crypto Ctr Designation
1280	(500)	CHARACTER	8	PSAX_CRYPTRS_REALADDR	PSAX 500X:
1288	(508)	CHARACTER	8	PSAX_AICD	PSAX 508X: AIC Designation
1288	(508)	CHARACTER	8	PSAX_AICB_REALADDR	PSAX 508X:
1296	(510)	CHARACTER	16	PSAX R510	PSAX 510: reserved for hardware
1312	(520)	CHARACTER	224	PSAX RT1WRT1X_520	PSAX 520X:

Table 707. Structure THEPSAX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1536	(600)	CHARACTER	256	PSAXRT1WRT1X_600	PSAX 600X:
1792	(700)	CHARACTER	64	PSAXRT1WRT1X_700	PSAX 700X:
1856	(740)	CHARACTER	192	PSAXR740	PSAX 740X
2048	(800)	CHARACTER	256	PSAX_PITDB	PSAX 800X: Program interrupt diagnostic block mapped by IHATDB
2304	(900)	CHARACTER	1240	PSAXSTAK	PSAX 900X:
3544	(DD8)	CHARACTER	40	PSAXRDD8	PSAX DD8X:
3584	(E00)	CHARACTER	128	PSAX0E00	PSAX E00X:
3584	(E00)	CHARACTER	64	PSAXDATLK	PSAX E00X: Area for 64-bit dat-off assist linkage code
3648	(E40)	ADDRESS	4	PSAXDATOF	PSAX E40x: Real storage address of the 64-bit dat-off linkage table which is initialized by NIP for 64-bit dat-on/dat-off linkage
3652	(E44)	SIGNED	4	PSAXDATLN	PSAX E44x: Length of the 64-bit dat-off linkage table
3656	(E48)	ADDRESS	4	PSAX_MCESAV	PSAX E48x: Virtual address of MCESA
3656	(E48)	ADDRESS	4	PSAXZ1	PSAX E48x:
3660	(E4C)	CHARACTER	52	PSAXRE4C	PSAX E4Cx: reserved
3712	(E80)	CHARACTER	384	PSAXSLSAS	PSAX E80x
3712	(E80)	CHARACTER	256	PSAXSLSA	PSAX E80x: analog of PSASLSA. Single level save area used by disabled routines with no dependency that the save area will remain intact across a call. This area is not maintained by restart processing that results in an abend of the interrupted routine.
3968	(F80)	CHARACTER	128	PSAXSLSA2	PSAX F80x: continuation of PSAXSLSA. Same rules apply

Table 708. Constants for IHAPSAX

Len	Type	Value	Name	Description
1	DECIMAL	11	PSAX_MCESA_LC_2048	2048-byte MCESA on 2048-byte boundary, for GSF
4	HEX	FFFFFC00	PSAX_MCESA_LW_MASK	AND PSAX_MCESA_LW with this before using as an address
4	DECIMAL	4096	PSAXPTR	
4	DECIMAL	0	PSAXDUMMYLEN1A	
4	DECIMAL	0	PSAXDUMMYLEN1B	

Table 709. Cross Reference for IHAPSAX

Name	Offset	Hex Tag
FLCXMCESA	200	
FLCXMCESAAR	340	
FLCXMCESAARS	340	
FLCXMCSACLOCKCOMPARATOR	331	
FLCXMCSACPUTIMER	328	
FLCXMCSACR	380	
FLCXMCSACRS	380	
FLCXMCESAFLA	300	



Table 709. Cross Reference for IHAPSAX (continued)

Name	Offset	Hex Tag
FLCXMCSAFPC	31C	
FLCXMCSAFPR	200	
FLCXMCSAFPRS	200	
FLCXMCSAGPR	280	
FLCXMCSAGPRS	280	
FLCXMCSAPREFIX	318	
FLCXMCSAPSW	300	
FLCXMCSATODPR	324	
FLCXR000	0	
FLCXR1B8	1B8	
FLCXR1C0	1C0	
FLCXR310	310	
FLCXR320	320	
FLCXR330	330	
FLCXR338	338	
PSAX_AICB_REALADDR	508	
PSAX_AICD	508	
PSAX_CCBAICB_REALADDRS	500	
PSAX_CCD	500	
PSAX_CRYPTRS_REALADDR	500	
PSAX_MCESA	1B0	
PSAX_MCESA_HW	1B0	
PSAX_MCESA_LC	1B7	0F
PSAX_MCESA_LW	1B4	
PSAX_MCESA_LW_BYTE3	1B7	
PSAX_MCESAV	E48	
PSAX_PITDB	800	
PSAXDATLK	E00	
PSAXDATLN	E44	
PSAXDATOF	E40	
PSAXFLCX	0	
PSAXRDD8	DD8	
PSAXRE4C	E4C	
PSAXRT1WRT1X_400	400	
PSAXRT1WRT1X_520	520	
PSAXRT1WRT1X_600	600	
PSAXRT1WRT1X_700	700	
PSAXR510	510	
PSAXR740	740	

Table 709. Cross Reference for IHAPSAX (continued)

Name	Offset	Hex Tag
PSAXSLSA	E80	
PSAXSLSAS	E80	
PSAXSLSA2	F80	
PSAXSTAK	900	
PSAXZ1	E48	
PSAX0E00	E00	
PSAX0500	500	
THEPSAX	0	

## IHAPWVT information

### IHAPWVT heading information

<b>Common name:</b>	Processor Work Unit Queue Vector Table
<b>Macro ID:</b>	IHAPWVT
<b>DSECT name:</b>	PWVT
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	PWVT Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 239 (Fixed, ESQA) Key: 0 Residency: Above 16M line
<b>Size:</b>	72 bytes
<b>Created by:</b>	IEAVINIT
<b>Pointed to by:</b>	ECVTPWVT field of the ECVT data area
<b>Serialization:</b>	Enqueue on the SYSZVARY.CPU resource.
<b>Function:</b>	Locates Processor WUQs (PWUQs)

### IHAPWVT mapping

Table 710. Structure PWVT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PWVT	
0	(0)	CHARACTER	4	PWVTPWVT	Acronym in EBCDIC- "PWVT ".
4	(4)	BITSTRING	64	PWVTPWUQ	Address of PWUQs for processors 0-15.
68	(44)	BITSTRING	4	PWVTR044	Reserved. SEE DEPENDENCY SECTION.
72	(48)	DBL WORD	8	PWVTEND(0)	End of the PWVT.

# IHARBUP information

## IHARBUP programming interface information

IHARBUP is a programming interface.

## IHARBUP heading information

<b>Common name:</b>	RB updated Return Information
<b>Macro ID:</b>	IHARBUP
<b>DSECT name:</b>	none
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: n/a Key: n/a Residency: n/a
<b>Size:</b>	n/a
<b>Created by:</b>	n/a
<b>Pointed to by:</b>	n/a
<b>Serialization:</b>	None required
<b>Function:</b>	Return Codes from IEARBUP service

## IHARBUP mapping

Table 711. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IHARBUP_1; IEARBUP Return and Reason Code definitions					
		.... ..		IEARBUPRC_OK	"X'00000000" Meaning: Iearbup request successful.
		.... 1...		IEARBUPRC_INVPARM	"X'00000008" Meaning: Iearbup request specifies invalid parameters. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEARBUPRSNBADVERSION	"X'00000801" Meaning: The version field in the parameter list is not valid. Action: Check for possible storage overlay.
0	(0)	BITSTRING	0	IEARBUPRSNBADAMODEFIELD	"X'00000802" Meaning: The amode field in the parameter list is not valid. Action: Check for possible storage overlay.
0	(0)	BITSTRING	0	IEARBUPRSNBADADDRESS	"X'00000803" Meaning: The address provided is not valid. Action: Only provide an instruction address that is less than X'80000000'.
0	(0)	BITSTRING	0	IEARBUPRSNBADFUNCTION	"X'00000804" Meaning: The function field in the parameter list is not valid. Action: Check for possible storage overlay.

Table 711. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 11..		IEARBUPRC_ENV	"X'0000000C'" Meaning: Environmental error Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEARBUPRSNPREVRBNOTFOUND	"X'00000C01'" Meaning: RB=PREV was requested, but there is only one RB for the current task. Action: Use RB=CURRENT when there is only one RB.
0	(0)	BITSTRING	0	IEARBUPRSNBADAMODE	"X'00000C02'" Meaning: AMODE=64 was specified but the architecture level is not ESAME. Action: Only request AMODE=64 when the architecture level is ESAME.

Table 712. Cross Reference for IHARBUP

Name	Offset	Hex Tag
IEARBUPRC_ENV	0	C
IEARBUPRC_INVPARM	0	8
IEARBUPRC_OK	0	0
IEARBUPRSNBADADDRESS	0	803
IEARBUPRSNBADAMODE	0	C02
IEARBUPRSNBADAMODEFIELD	0	802
IEARBUPRSNBADFUNCTION	0	804
IEARBUPRSNBADVERSION	0	801
IEARBUPRSNPREVRBNOTFOUND	0	C01

## IHASAVER information

### IHASAVER programming interface information

IHASAVER is a programming interface.

### IHASAVER heading information

<b>Common name:</b>	General Purpose Registers Save Area
<b>Macro ID:</b>	IHASAVER
<b>DSECT name:</b>	SAVER SAVF4SA SAVF5SA SAVF7SA SAVF8SA
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine Key: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine Residency: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine

**Size:** SAVER -- X'0048' bytes  
SAVF4SA -- X'0090' bytes  
SAVF5SA -- X'00D8' bytes  
SAVF7SA -- X'00D8' bytes  
SAVF8SA -- X'0120' bytes

**Created by:** Caller except for SAVF5SA/SAVF8SA which is created by called routine

**Pointed to by:** R13 on input to a called routine or getmaind by called routine

**Serialization:** None required

**Function:** Maps the save area

## IHASAVER mapping

Table 713. Structure SAVER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVER	
0	(0)	ADDRESS	4	SAVPLI	USED BY PL/I LANG. PRGM
4	(4)	ADDRESS	4	SAVPREV	ADDR OF PREVIOUS SAVEAREA
8	(8)	ADDRESS	4	SAVNEXT	ADDR OF NEXT SAVE AREA
12	(C)	ADDRESS	4	SAVGRS14	REGISTER 14
16	(10)	ADDRESS	4	SAVGRS15	REGISTER 15
20	(14)	ADDRESS	4	SAVGRS0	REGISTER 0
24	(18)	ADDRESS	4	SAVGRS1	REGISTER 1
28	(1C)	ADDRESS	4	SAVGRS2	REGISTER 2
32	(20)	ADDRESS	4	SAVGRS3	REGISTER 3
36	(24)	ADDRESS	4	SAVGRS4	REGISTER 4
40	(28)	ADDRESS	4	SAVGRS5	REGISTER 5
44	(2C)	ADDRESS	4	SAVGRS6	REGISTER 6
48	(30)	ADDRESS	4	SAVGRS7	REGISTER 7
52	(34)	ADDRESS	4	SAVGRS8	REGISTER 8
56	(38)	ADDRESS	4	SAVGRS9	REGISTER 9
60	(3C)	ADDRESS	4	SAVGRS10	REGISTER 10
64	(40)	ADDRESS	4	SAVGRS11	REGISTER 11
68	(44)	ADDRESS	4	SAVGRS12	REGISTER 12
68	(44)	X'48'	0	SAVER_LEN	"*-SAVER"

Table 714. Structure SAVF4SA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF4SA	
0	(0)	ADDRESS	4	SAVF4SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF4SAID	'F4SA'
8	(8)	CHARACTER	8	SAVF4SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF4SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF4SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF4SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF4SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF4SAG64RS3	REGISTER 3

Table 714. Structure SAVF4SA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
56	(38)	CHARACTER	8	SAVF4SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF4SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF4SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF4SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF4SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF4SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF4SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF4SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF4SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF4SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF4SANEXT	ADDR OF NEXT SAVE AREA
136	(88)	X'F4E2C1'	0	SAVF4SAID_VALUE	"C'F4SA"
136	(88)	X'90'	0	SAVF4SA_LEN	"*-SAVF4SA"

Table 715. Structure SAVF5SA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF5SA	
0	(0)	ADDRESS	4	SAVF5SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF5SAID	'F5SA'
8	(8)	CHARACTER	8	SAVF5SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF5SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF5SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF5SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF5SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF5SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF5SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF5SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF5SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF5SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF5SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF5SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF5SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF5SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF5SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF5SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF5SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	ADDRESS	4	SAVF5SAG64HS0	High half of caller's R0
148	(94)	ADDRESS	4	SAVF5SAG64HS1	High half of caller's R1
152	(98)	ADDRESS	4	SAVF5SAG64HS2	High half of caller's R2
156	(9C)	ADDRESS	4	SAVF5SAG64HS3	High half of caller's R3
160	(A0)	ADDRESS	4	SAVF5SAG64HS4	High half of caller's R4
164	(A4)	ADDRESS	4	SAVF5SAG64HS5	High half of caller's R5
168	(A8)	ADDRESS	4	SAVF5SAG64HS6	High half of caller's R6
172	(AC)	ADDRESS	4	SAVF5SAG64HS7	High half of caller's R7
176	(B0)	ADDRESS	4	SAVF5SAG64HS8	High half of caller's R8

Table 715. Structure SAVF5SA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
180	(B4)	ADDRESS	4	SAVF5SAG64HS9	High half of caller's R9
184	(B8)	ADDRESS	4	SAVF5SAG64HS10	High half of caller's R10
188	(BC)	ADDRESS	4	SAVF5SAG64HS11	High half of caller's R11
192	(C0)	ADDRESS	4	SAVF5SAG64HS12	High half of caller's R12
196	(C4)	ADDRESS	4	SAVF5SAG64HS13	High half of caller's R13
200	(C8)	ADDRESS	4	SAVF5SAG64HS14	High half of caller's R14
204	(CC)	ADDRESS	4	SAVF5SAG64HS15	High half of caller's R15
208	(D0)	CHARACTER	8		Undefined
208	(D0)	X'F5E2C1'	0	SAVF5SAID_VALUE	"C'F5SA'"
208	(D0)	X'D8'	0	SAVF5SA_LEN	"*-SAVF5SA"

Table 716. Structure SAVF7SA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF7SA	
0	(0)	ADDRESS	4	SAVF7SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF7SAID	'F7SA'
8	(8)	CHARACTER	8	SAVF7SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF7SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF7SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF7SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF7SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF7SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF7SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF7SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF7SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF7SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF7SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF7SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF7SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF7SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF7SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF7SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF7SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	SIGNED	4	SAVF7SAAR14	AR 14
148	(94)	SIGNED	4	SAVF7SAAR15	AR 15
152	(98)	SIGNED	4	SAVF7SAAR0	AR 0
156	(9C)	SIGNED	4	SAVF7SAAR1	AR 1
160	(A0)	SIGNED	4	SAVF7SAAR2	AR 2
164	(A4)	SIGNED	4	SAVF7SAAR3	AR 3
168	(A8)	SIGNED	4	SAVF7SAAR4	AR 4
172	(AC)	SIGNED	4	SAVF7SAAR5	AR 5
176	(B0)	SIGNED	4	SAVF7SAAR6	AR 6
180	(B4)	SIGNED	4	SAVF7SAAR7	AR 7
184	(B8)	SIGNED	4	SAVF7SAAR8	AR 8
188	(BC)	SIGNED	4	SAVF7SAAR9	AR 9

Table 716. Structure SAVF7SA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
192	(C0)	SIGNED	4	SAVF7SAAR10	AR 10
196	(C4)	SIGNED	4	SAVF7SAAR11	AR 11
200	(C8)	SIGNED	4	SAVF7SAAR12	AR 12
204	(CC)	SIGNED	4	SAVF7SAAR13	ALET of previous save area or undefined
208	(D0)	SIGNED	4	SAVF7SAASC	ASC mode of caller
212	(D4)	CHARACTER	4		Undefined
212	(D4)	X'F7E2C1'	0	SAVF7SAID_VALUE	"C'F7SA'"
212	(D4)	X'D8'	0	SAVF7SA_LEN	"*-SAVF7SA"

Table 717. Structure SAVF8SA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF8SA	
0	(0)	ADDRESS	4	SAVF8SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF8SAID	'F8SA'
8	(8)	CHARACTER	8	SAVF8SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF8SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF8SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF8SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF8SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF8SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF8SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF8SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF8SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF8SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF8SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF8SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF8SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF8SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF8SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF8SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF8SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	SIGNED	4	SAVF8SAAR14	AR 14
148	(94)	SIGNED	4	SAVF8SAAR15	AR 15
152	(98)	SIGNED	4	SAVF8SAAR0	AR 0
156	(9C)	SIGNED	4	SAVF8SAAR1	AR 1
160	(A0)	SIGNED	4	SAVF8SAAR2	AR 2
164	(A4)	SIGNED	4	SAVF8SAAR3	AR 3
168	(A8)	SIGNED	4	SAVF8SAAR4	AR 4
172	(AC)	SIGNED	4	SAVF8SAAR5	AR 5
176	(B0)	SIGNED	4	SAVF8SAAR6	AR 6
180	(B4)	SIGNED	4	SAVF8SAAR7	AR 7
184	(B8)	SIGNED	4	SAVF8SAAR8	AR 8
188	(BC)	SIGNED	4	SAVF8SAAR9	AR 9
192	(C0)	SIGNED	4	SAVF8SAAR10	AR 10



Table 717. Structure SAVF8SA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
196	(C4)	SIGNED	4	SAVF8SAAR11	AR 11
200	(C8)	SIGNED	4	SAVF8SAAR12	AR 12
204	(CC)	SIGNED	4	SAVF8SAAR13	ALET of previous save area or undefined
208	(D0)	SIGNED	4	SAVF8SAASC	ASC mode of caller
212	(D4)	CHARACTER	4		Undefined
216	(D8)	ADDRESS	4	SAVF8SAG64HS0	High half of caller's R0
220	(DC)	ADDRESS	4	SAVF8SAG64HS1	High half of caller's R1
224	(E0)	ADDRESS	4	SAVF8SAG64HS2	High half of caller's R2
228	(E4)	ADDRESS	4	SAVF8SAG64HS3	High half of caller's R3
232	(E8)	ADDRESS	4	SAVF8SAG64HS4	High half of caller's R4
236	(EC)	ADDRESS	4	SAVF8SAG64HS5	High half of caller's R5
240	(F0)	ADDRESS	4	SAVF8SAG64HS6	High half of caller's R6
244	(F4)	ADDRESS	4	SAVF8SAG64HS7	High half of caller's R7
248	(F8)	ADDRESS	4	SAVF8SAG64HS8	High half of caller's R8
252	(FC)	ADDRESS	4	SAVF8SAG64HS9	High half of caller's R9
256	(100)	ADDRESS	4	SAVF8SAG64HS10	High half of caller's R10
260	(104)	ADDRESS	4	SAVF8SAG64HS11	High half of caller's R11
264	(108)	ADDRESS	4	SAVF8SAG64HS12	High half of caller's R12
268	(10C)	ADDRESS	4	SAVF8SAG64HS13	High half of caller's R13
272	(110)	ADDRESS	4	SAVF8SAG64HS14	High half of caller's R14
276	(114)	ADDRESS	4	SAVF8SAG64HS15	High half of caller's R15
280	(118)	CHARACTER	8		Undefined
280	(118)	X'F8E2C1'	0	SAVF8SAID_VALUE	"C'F8SA'"
280	(118)	X'120'	0	SAVF8SA_LEN	"*-SAVF8SA"

Table 718. Cross Reference for IHASAVR

Name	Offset	Hex Tag
SAVER	0	
SAVER_LEN	44	48
SAVF4SA	0	
SAVF4SA_LEN	88	90
SAVF4SAG64RS0	18	
SAVF4SAG64RS1	20	
SAVF4SAG64RS10	68	
SAVF4SAG64RS11	70	
SAVF4SAG64RS12	78	
SAVF4SAG64RS14	8	
SAVF4SAG64RS15	10	
SAVF4SAG64RS2	28	
SAVF4SAG64RS3	30	
SAVF4SAG64RS4	38	
SAVF4SAG64RS5	40	

Table 718. Cross Reference for IHASAVER (continued)

Name	Offset	Hex Tag
SAVF4SAG64RS6	48	
SAVF4SAG64RS7	50	
SAVF4SAG64RS8	58	
SAVF4SAG64RS9	60	
SAVF4SAID	4	
SAVF4SAID_VALUE	88	F4E2C1
SAVF4SALANG	0	
SAVF4SANEXT	88	
SAVF4SAPREV	80	
SAVF5SA	0	
SAVF5SA_LEN	D0	D8
SAVF5SAG64HS0	90	
SAVF5SAG64HS1	94	
SAVF5SAG64HS10	B8	
SAVF5SAG64HS11	BC	
SAVF5SAG64HS12	C0	
SAVF5SAG64HS13	C4	
SAVF5SAG64HS14	C8	
SAVF5SAG64HS15	CC	
SAVF5SAG64HS2	98	
SAVF5SAG64HS3	9C	
SAVF5SAG64HS4	A0	
SAVF5SAG64HS5	A4	
SAVF5SAG64HS6	A8	
SAVF5SAG64HS7	AC	
SAVF5SAG64HS8	B0	
SAVF5SAG64HS9	B4	
SAVF5SAG64RS0	18	
SAVF5SAG64RS1	20	
SAVF5SAG64RS10	68	
SAVF5SAG64RS11	70	
SAVF5SAG64RS12	78	
SAVF5SAG64RS14	8	
SAVF5SAG64RS15	10	
SAVF5SAG64RS2	28	
SAVF5SAG64RS3	30	
SAVF5SAG64RS4	38	
SAVF5SAG64RS5	40	
SAVF5SAG64RS6	48	

Table 718. Cross Reference for IHASAVER (continued)

Name	Offset	Hex Tag
SAVF5SAG64RS7	50	
SAVF5SAG64RS8	58	
SAVF5SAG64RS9	60	
SAVF5SAID	4	
SAVF5SAID_VALUE	D0	F5E2C1
SAVF5SALANG	0	
SAVF5SANEXT	88	
SAVF5SAPREV	80	
SAVF7SA	0	
SAVF7SA_LEN	D4	D8
SAVF7SAAR0	98	
SAVF7SAAR1	9C	
SAVF7SAAR10	C0	
SAVF7SAAR11	C4	
SAVF7SAAR12	C8	
SAVF7SAAR13	CC	
SAVF7SAAR14	90	
SAVF7SAAR15	94	
SAVF7SAAR2	A0	
SAVF7SAAR3	A4	
SAVF7SAAR4	A8	
SAVF7SAAR5	AC	
SAVF7SAAR6	B0	
SAVF7SAAR7	B4	
SAVF7SAAR8	B8	
SAVF7SAAR9	BC	
SAVF7SAASC	D0	
SAVF7SAG64RS0	18	
SAVF7SAG64RS1	20	
SAVF7SAG64RS10	68	
SAVF7SAG64RS11	70	
SAVF7SAG64RS12	78	
SAVF7SAG64RS14	8	
SAVF7SAG64RS15	10	
SAVF7SAG64RS2	28	
SAVF7SAG64RS3	30	
SAVF7SAG64RS4	38	
SAVF7SAG64RS5	40	
SAVF7SAG64RS6	48	

Table 718. Cross Reference for IHASAVER (continued)

Name	Offset	Hex Tag
SAVF7SAG64RS7	50	
SAVF7SAG64RS8	58	
SAVF7SAG64RS9	60	
SAVF7SAID	4	
SAVF7SAID_VALUE	D4	F7E2C1
SAVF7SALANG	0	
SAVF7SANEXT	88	
SAVF7SAPREV	80	
SAVF8SA	0	
SAVF8SA_LEN	118	120
SAVF8SAAR0	98	
SAVF8SAAR1	9C	
SAVF8SAAR10	C0	
SAVF8SAAR11	C4	
SAVF8SAAR12	C8	
SAVF8SAAR13	CC	
SAVF8SAAR14	90	
SAVF8SAAR15	94	
SAVF8SAAR2	A0	
SAVF8SAAR3	A4	
SAVF8SAAR4	A8	
SAVF8SAAR5	AC	
SAVF8SAAR6	B0	
SAVF8SAAR7	B4	
SAVF8SAAR8	B8	
SAVF8SAAR9	BC	
SAVF8SAASC	D0	
SAVF8SAG64HS0	D8	
SAVF8SAG64HS1	DC	
SAVF8SAG64HS10	100	
SAVF8SAG64HS11	104	
SAVF8SAG64HS12	108	
SAVF8SAG64HS13	10C	
SAVF8SAG64HS14	110	
SAVF8SAG64HS15	114	
SAVF8SAG64HS2	E0	
SAVF8SAG64HS3	E4	
SAVF8SAG64HS4	E8	
SAVF8SAG64HS5	EC	

Table 718. Cross Reference for IHASAVER (continued)

Name	Offset	Hex Tag
SAVF8SAG64HS6	F0	
SAVF8SAG64HS7	F4	
SAVF8SAG64HS8	F8	
SAVF8SAG64HS9	FC	
SAVF8SAG64RS0	18	
SAVF8SAG64RS1	20	
SAVF8SAG64RS10	68	
SAVF8SAG64RS11	70	
SAVF8SAG64RS12	78	
SAVF8SAG64RS14	8	
SAVF8SAG64RS15	10	
SAVF8SAG64RS2	28	
SAVF8SAG64RS3	30	
SAVF8SAG64RS4	38	
SAVF8SAG64RS5	40	
SAVF8SAG64RS6	48	
SAVF8SAG64RS7	50	
SAVF8SAG64RS8	58	
SAVF8SAG64RS9	60	
SAVF8SAID	4	
SAVF8SAID_VALUE	118	F8E2C1
SAVF8SALANG	0	
SAVF8SANEXT	88	
SAVF8SAPREV	80	
SAVGRS0	14	
SAVGRS1	18	
SAVGRS10	3C	
SAVGRS11	40	
SAVGRS12	44	
SAVGRS14	C	
SAVGRS15	10	
SAVGRS2	1C	
SAVGRS3	20	
SAVGRS4	24	
SAVGRS5	28	
SAVGRS6	2C	
SAVGRS7	30	
SAVGRS8	34	
SAVGRS9	38	

Table 718. Cross Reference for IHASAVER (continued)

Name	Offset	Hex Tag
SAVNEXT	8	
SAVPLI	0	
SAVPREV	4	

## IHASCBO information

### IHASCBO heading information

<b>Common name:</b>	STAE Control Block Old (pre-z/OS R6)
<b>Macro ID:</b>	IHASCBO
<b>DSECT name:</b>	SCBO, SCBOX
<b>Owning component:</b>	Recovery Termination Manager (SCRTM)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 255 Key: 0
<b>Size:</b>	48 bytes
<b>Created by:</b>	IEAVSTA0, IEAVSTA1
<b>Pointed to by:</b>	TCBSTABB field of the TCB data area SCBOCHAIN field of the SCBO data area
<b>Serialization:</b>	Task Active
<b>Function:</b>	The SCBO is used to make STAE/ESTAE/ESTAEX recovery routines known to the system.

### IHASCBO mapping

Table 719. Structure SCBO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	24	SCBO	
0	(0)	ADDRESS	4	SCBOCHAIN	POINTER TO NEXT SCB ON CHAIN
4	(4)	ADDRESS	4	SCBOEXIT	POINTER TO USER WRITTEN EXIT ROUTINE
8	(8)	ADDRESS	4	SCBOPARM	ADDRESS OF PARAMETER LIST FOR STA EXIT
8	(8)	CHARACTER	1	SCBOFLGS1	FIRST FLAG BYTE
	1... ..			SCBOSTAI	STAI SCB
	.1.. ..			SCBOASCM	ADDRESS SPACE CONTROL MODE FOR EXIT ROUTINE (0 = PRIMARY, 1 = AR MODE.
	..1. ....			SCBONCNL	NO CANCEL - ROUTINE RUNS PROTECTED FROM CANCELS AND DETACHES
	...1 ....			SCBOESTAE	ESTAE INDICATOR
	.... 1...			SCBOTOKEN	ESTAE ESTABLISHED WITH TOKEN
	.... .1..			SCBOASYNC	ALLOW ASYNCHRONOUS INTERRUPTS

Table 719. Structure SCBO (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ..11		SCBOIOPRC	I/O PROCESSING OPTION, BITS 6 & 7 00 - QUIESCE I/O 01 - HALT I/O 10 - BYPASS I/O INTERVENTION 11 - (RESERVED)
		.... ..1.		SCBONOIOP	BYPASS I/O INTERVENTION
		.... ...1		SCBOHALT	HALT I/O
9	(9)	ADDRESS	3	SCBOPARMA	24 BIT USER PARAMETER LIST ADDRESS
		1... ....		SCBOAM64	Extended AMODE - 64. Only valid when this is not a STAE/STAI and not a FESTAE
12	(C)	ADDRESS	4	SCBOOWNR	TCB/RB ADDRESS CONTROLLING SCB
12	(C)	CHARACTER	1	SCBOFLGS2	SECOND FLAG BYTE
		1... ....		SCBOAMODE	USER IN 31 BIT ADDRESSING MODE
		1... ....		SCBOAM31	USER IN 31 BIT ADDRESSING MODE
		.1.. ....		SCBOXCTL2	RETAIN THIS SCB ACROSS XCTL
		..1. ....		SCBOARRFL	THIS SCB WAS CREATED BY RTM2 TO MANAGE AN ASSOCIATED RECOVERY ROUTINE FROM THE LINKAGE STACK
		...1 ....		SCBOINUSE	THIS SCB IN USE
		.... 1...		SCBOL031	SDWA is LOC 31
		.... .1..		SCBOPC	PC ESTAE TYPE SCB
		.... ..1.		SCBOKEY0	USER IN KEY 0-7
		.... ...1		SCBOSUPER	USER IN SUPERVISOR MODE
13	(D)	ADDRESS	3	SCBOOWNRA	RB ADDRESS IF STAE, TCB ADDRESS IF STAI.
16	(10)	ADDRESS	4	SCBODATA	FLAGS AND DATA FIELD
16	(10)	CHARACTER	1	SCBOFLGS3	OPTION FLAGS
		1... ....		SCBOSTAUT	STAE REQUESTOR IS AUTHORIZED
		.1.. ....		SCBOTERMI	AUTHORIZED FOR SPECIAL TERM PROCESSING
		..1. ....		SCBORECRD	ON INDICATES ERROR RECORD IS TO BE WRITTEN TO SYS1.LOGREC
		...1 ....		SCBODUMMY	DUMMY SCB - (WILL NOT BE SCHEDULED).
		.... 1...		SCBOPRNTR	SCB PREVIOUSLY ENTERED
		.... .1..		SCBOBRNTR	FESTAE
		.... ..1.		SCBORB	SAVED STATUS OF RBSCBO
		.... ...1		SCBOUNSS	UNSTACK SUPPRESS STATUS OF THE LINKAGE STACK ENTRY THAT WAS CURRENT WHEN THIS SCB WAS CREATED 1 - UNSTACK SUPPRESS WAS ACTIVE 0 - UNSTACK SUPPRESS WAS INACTIVE
17	(11)	CHARACTER	1	SCBOPKEY	PROGRAM KEY
18	(12)	CHARACTER	1	SCBOID	SCB IDENTIFIER
19	(13)	BITSTRING	1	SCBOPCFLG	PC ESTAE USER FLAGS, VALID IF SCBOPC IS ON
		1... ....		SCBOPTERM	Request for TERM ESTAE
		.1.. ....		SCBOPREC	Request for RECORDing
		..1. ....		SCBOPXCTL	Request for XCTL
		...1 ....		SCBOPNCNL	Request for CANCEL=NO
		.... 1...		*	TOKEN flag - not used
		.... .1..		SCBOPASYN	Request for ASYNCH

Table 719. Structure SCBO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..11		SCBOPIO	I/O request bits 00 - QUIESCE I/O 01 - HALT I/O 10 - BYPASS I/O INTERVENTION 11 - (RESERVED)
		.... ..1.		SCBOPNOIO	Bypass I/O intervention
		.... ...1		SCBOPHALT	Halt I/O
20	(14)	ADDRESS	4	SCBOXPTR	POINTER TO SCB EXTENSION
		1... ....		SCBOFTIME	SCB WAS IN THE FIRST GETMAIN

Table 720. Structure SCBOX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	SCBOX	SCB EXTENSION
0	(0)	CHARACTER	8	SCBOXCR34	CONTROL REGISTERS 3 AND 4
0	(0)	CHARACTER	2	SCBOXKMSK	KEYMASK
2	(2)	CHARACTER	6	SCBOXRSV	SECONDARY ASN, EXTENDED AUTH INDEX, AND PRIMARY ASN.
2	(2)	CHARACTER	2	SCBOXSASN	SECONDARY ASN
4	(4)	CHARACTER	2	SCBOXEAX	EXTENDED AUTH. INDEX
6	(6)	CHARACTER	2	SCBOXPASN	PRIMARY ASN
8	(8)	BITSTRING	4	SCBOXTOKN	ESTAE TOKEN VALUE
12	(C)	CHARACTER	8	SCBOXPRMS	FIELD NAME FOR IEAVSTA1
12	(C)	ADDRESS	4	SCBOXPARM	31 BIT USER PARAMETER LIST ADDRESS
16	(10)	ADDRESS	4	SCBOXALET	ALET ASSOCIATED WITH PARAM
20	(14)	ADDRESS	4	SCBOXLSEA	LINKAGE STACK ENTRY ADDR

Table 721. Cross Reference for IHASCBO

Name	Offset	Hex	Tag
SCBO	0		
SCBOAMODE	C		80
SCBOAM31	C		80
SCBOAM64	9		80
SCBOARRFL	C		20
SCBOASCM	8		40
SCBOASYNC	8		04
SCBOBRNTR	10		04
SCBOCHAIN	0		
SCBODATA	10		
SCBODUMMY	10		10
SCBOESTAE	8		10
SCBOEXIT	4		
SCBOFLGS1	8		
SCBOFLGS2	C		
SCBOFLGS3	10		
SCBOFTIME	14		80



Table 721. Cross Reference for IHASCBO (continued)

Name	Offset	Hex Tag
SCBOHALT	8	01
SCB0ID	12	
SCB0INUSE	C	10
SCB0IOPRC	8	03
SCB0KEY0	C	02
SCB0L031	C	08
SCB0NCNL	8	20
SCB0NOIOP	8	02
SCB0OWNR	C	
SCB0OWNRA	D	
SCB0PARM	8	
SCB0PARMA	9	
SCB0PASYN	13	04
SCB0PC	C	04
SCB0PCFLG	13	
SCB0PHALT	13	01
SCB0PIO	13	03
SCB0PKEY	11	
SCB0PNCNL	13	10
SCB0PNOIO	13	02
SCB0PREC	13	40
SCB0PRNTR	10	08
SCB0PTERM	13	80
SCB0PXCTL	13	20
SCB0RB	10	02
SCB0RECRD	10	20
SCB0STAI	8	80
SCB0STAUT	10	80
SCB0SUPER	C	01
SCB0TERMI	10	40
SCB0TOKEN	8	08
SCB0UNSS	10	01
SCBOX	0	
SCBOXALET	10	
SCBOXCR34	0	
SCBOXCTL2	C	40
SCBOXEAX	4	
SCBOXKMSK	0	
SCBOXLSEA	14	

Table 721. Cross Reference for IHASCBO (continued)

Name	Offset	Hex Tag
SCBOXPARM	C	
SCBOXPASN	6	
SCBOXPRMS	C	
SCBOXPTR	14	
SCBOXRSV	2	
SCBOXSASN	2	
SCBOXTOKN	8	

## IHASDDEX information

### IHASDDEX programming interface information

IHASDDEX is a programming interface.

### IHASDDEX heading information

<b>Common name:</b>	Post-Dump Dynamic Exit Parameter List
<b>Macro ID:</b>	IHASDDEX
<b>DSECT name:</b>	SDDEX
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	'SDDE' Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 229 Key: 0 Residency: 31-bit Storage
<b>Size:</b>	396 bytes SDDEX -- X'018C' bytes
<b>Created by:</b>	IEAVTSEP
<b>Pointed to by:</b>	R1 on entry to all IEASDUMP.POSTDMP exit routines.
<b>Serialization:</b>	None
<b>Function:</b>	Maps the parameter list passed to IEASDUMP.POSTDMP exit routines

### IHASDDEX mapping

Table 722. Structure SDDEX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDDEX	SDDEX - Sdump dynamic exit IEASDUMP.POSTDMP parm list
0	(0)	CHARACTER	4	SDDEX_ACRONYM	Acronym - 'SDDE'

Table 722. Structure SDDEX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	BITSTRING	1	SDDEX_VERSION	Version level of SDDEX
5	(5)	CHARACTER	3		Reserved
8	(8)	SIGNED	2	SDDEX_LENGTH	Length of the SDDEX
10	(A)	CHARACTER	2		Reserved
12	(C)	CHARACTER	100	SDDEX_DUMPTITLE	Dump title
112	(70)	CHARACTER	8	SDDEX_JOBID	JobId
120	(78)	CHARACTER	32	SDDEX_INCIDENTTOKEN	Incident Token
152	(98)	CHARACTER	44	SDDEX_DATASETNAME	Dump data set name
196	(C4)	CHARACTER	8	SDDEX_TODVL	Clock value at time of dump
204	(CC)	CHARACTER	10	SDDEX_ERRORID	Error ID associated with dump
214	(D6)	BITSTRING	2	SDDEX_FLAGS	Flags
214	(D6)	BITSTRING	1	SDDEX_FLAG1	First flag byte
Bit definitions:					
		1... ....		SDDEX_SVCDUMP	"X'80'" If on, it is a SVCDump
		.1.. ....		SDDEX_REMOTEDUMP	"X'40'" If on, it is a remote dump
		..1. ....		SDDEX_SYSDUMP	"X'20'" If on, it is a SYSDump
		...1 ....		SDDEX_SLIPDUMP	"X'10'" If on, it is a Slip dump
		.... 1...		SDDEX_DUMPCMD	"X'08'" If on, it is a Dump Command
215	(D7)	BITSTRING	1		Reserved
216	(D8)	CHARACTER	150	SDDEX_PRIMARYSYMPTOMSTRING	Primary symptom string
366	(16E)	SIGNED	2	SDDEX_PRIMARYSYMPTOMSTRINGLENGTH	Length of Primary Symptom String
368	(170)	ADDRESS	4	SDDEX_WORKAREA@	Pointer to 20K workarea for the exit. Each exit routine will share the same 20k workarea. It is up to the exit routine to initialize the workarea.
372	(174)	CHARACTER	4	SDDEX_SSNAME	Name of the subsystem that managed the job
376	(178)	CHARACTER	20		Reserved
396	(18C)	CHARACTER	1	SDDEX_END(0)	End of SDDEX structure
Constants					
396	(18C)	X'1'	0	SDDEX_KVERSIONHBB7750	"1"
396	(18C)	X'2'	0	SDDEX_KVERSIONHBB7770	"2"
396	(18C)	X'2'	0	SDDEX_KVERSIONCURRENT	"2"
396	(18C)	X'C4C4C5'	0	SDDEX_KACRONYM	"C'SDDE'"
396	(18C)	X'18C'	0	SDDEX_LEN	"*-SDDEX"

Table 723. Cross Reference for IHASDDEX

Name	Offset	Hex Tag
SDDEX	0	
SDDEX_ACRONYM	0	
SDDEX_DATASETNAME	98	
SDDEX_DUMPCMD	D6	8
SDDEX_DUMPTITLE	C	

Table 723. Cross Reference for IHASDDEX (continued)

Name	Offset	Hex Tag
SDDEX_END	18C	
SDDEX_ERRORID	CC	
SDDEX_FLAGS	D6	
SDDEX_FLAG1	D6	
SDDEX_INCIDENTTOKEN	78	
SDDEX_JOBID	70	
SDDEX_KACRONYM	18C	C4C4C5
SDDEX_KVERSIONCURRENT	18C	2
SDDEX_KVERSIONHBB7750	18C	1
SDDEX_KVERSIONHBB7770	18C	2
SDDEX_LEN	18C	18C
SDDEX_LENGTH	8	
SDDEX_PRIMARYSYMPTOMSTRING	D8	
SDDEX_PRIMARYSYMPTOMSTRINGLENGTH	16E	
SDDEX_REMOTEDUMP	D6	40
SDDEX_SLIPDUMP	D6	10
SDDEX_SSNAME	174	
SDDEX_SVCDUMP	D6	80
SDDEX_SYSDUMP	D6	20
SDDEX_TODVL	C4	
SDDEX_VERSION	4	
SDDEX_WORKAREA@	170	

## IHASDEXI information

### IHASDEXI programming interface information

IHASDEXI is a programming interface.

### IHASDEXI heading information

<b>Common name:</b>	SDUMP Exit information
<b>Macro ID:</b>	IHASDEXI
<b>DSECT name:</b>	SDEXI SDEXIALST SDEXIDRPX
<b>Owning component:</b>	SDUMP (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 231 Key: 0 Residency: Above 16M

**Size:** SDEXIDRPX64 -- X'0040' bytes  
SDEXI -- X'0070' bytes  
SDEXIWORK -- X'00C8' bytes  
SDEXISAVE -- X'0048' bytes  
SDEXIALST -- X'0004' bytes  
SDEXIDRPX -- X'0040' bytes  
SDEXIUTokenArea -- X'0100' bytes

**Created by:** Created by SDUMP, passed to SDUMP local/global exit(s)

**Pointed to by:** R1 on entry to SDUMP local/global exit(s)

**Serialization:** None required

**Function:** Maps the information needed by the SDUMP local/global exit(s)

## IHASDEXI mapping

Table 724. Structure SDEXI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDEXI	SVC Dump exit parameter list fields for use by, or to be filled in by, exit
0	(0)	CHARACTER	12	SDEXICOMM	Data common to SDEXP and SDEXI - maintained for consistency reasons
0	(0)	CHARACTER	10	SDEXICOM1	Reserved
10	(A)	CHARACTER	1	SDEXIFLAG1	MISC flags
Bit definitions:					
	..1. ....			SDEXISENSITIVE	"X'20'" If set, it indicates that that Exit has requested to tag their storage as sensitive=yes. This means, it will be redacted when the dump, captured on a qualifying processor, is post-processed.
	...1 ....			SDEXINOTSENSITIVE	"X'10'" If set, it indicates that that Exit has requested to tag their storage as sensitive=no. This means, it will be not be redacted if the dump, captured on a qualifying processor, is post-processed.
11	(B)	CHARACTER	1	SDEXIFLAG2	MISC flags
12	(C)	ADDRESS	4	SDEXIBFAD	Address of data buffer. Set by SVC Dump. For use by exit.
16	(10)	SIGNED	4	SDEXIBFLN	Length of data buffer (4096 bytes). For use by exit.
20	(14)	ADDRESS	4	SDEXIORAD	Address of output routine. Set by SVC Dump. For use by exit. Interface to routine: AMODE=31. PASN=HASN=SASN Task mode. Enabled, no locks held, no EUT FRRs. Key 0, Supervisor State. R1 - address of SDEXI. R13 - address of 72-byte save area. R14 - return address. R15 - entry point address.
24	(18)	CHARACTER	2	SDEXIKEYS	Storage keys for moved data. Must be set by exit if bit SdexiDRPS is not set.
24	(18)	CHARACTER	1	SDEXIFKEY	Storage key of first 2K of data (Key must be in bits 0-3, not 4-7 of the byte)
25	(19)	CHARACTER	1	SDEXISKEY	Storage key of second 2K of data (Key must be in bits 0-3, not 4-7 of the byte)

Table 724. Structure SDEXI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
26	(1A)	CHARACTER	2	SDEXIASID	ASID of data moved to buffer. Must be set by exit if bit SdexiDRPS is not set.
28	(1C)	CHARACTER	4		Contains no information for use by the exit.
32	(20)	ADDRESS	4	SDEXICDAD	Address of data in buffer. Must be set by exit if bit SdexiDRPS is not set. This address should be on a page boundary, and the buffer should contain 4096 bytes of data representing the contents of the entire page.
36	(24)	CHARACTER	8		Contains no information for use by the exit.
44	(2C)	ADDRESS	4	SDEXISVAD	Address of 72-byte save area. Set by SVC Dump. For use by exit.
48	(30)	CHARACTER	4		Contains no information for use by the exit.
52	(34)	ADDRESS	4	SDEXIWKAD	Address of work area. Set by SVC Dump. For use by exit. Length is in SdexiWKLN (AT LEAST 200 BYTES)
56	(38)	SIGNED	4	SDEXIWKLN	Length of work area pointed to by SdexiWKAD
60	(3C)	ADDRESS	4	SDEXIDRPA	Address of dump record prefix to be filled in by exit
Bit definitions:					
	1... ..			SDEXIDRPS	"X'80'" If on, then the dump record prefix was filled in by the exit. This bit is set by the exit, and checked by SVC Dump. It is initially off
64	(40)	ADDRESS	4	SDEXIALP	Pointer to the ASID list - Set by SVC Dump. For use by exit.
68	(44)	CHARACTER	8	SDEXISDA0	SDATA OPTIONS
68	(44)	CHARACTER	2	SDEXISDTA	SDATA OPTION FLAGS
68	(44)	CHARACTER	1	SDEXISDT1	1ST BYTE OF OPTIONS
Bit definitions:					
	1... ..			SDEXIAPSA	"X'80'" DUMP ALL PSA'S
	.1.. ..			SDEXIPSA	"X'40'" DUMP CURRENT PSA
	..1. ....			SDEXINUC	"X'20'" DUMP THE NUCLEUS
	...1 ....			SDEXISQA	"X'10'" DUMP SQA
	.... 1...			SDEXILSQA	"X'08'" DUMP LSQA
	.... .1..			SDEXIRGN	"X'04'" DUMP RGN-PRIVATE AREA
	.... ..1.			SDEXILPA	"X'02'" DUMP LPA MOD. FOR RGN
	.... ...1			SDEXITRT	"X'01'" DUMP TRACE DATA
69	(45)	CHARACTER	1	SDEXISDT2	SECOND BYTE SDATA FLGS
Bit definitions:					
	1... ..			SDEXICSA	"X'80'" DUMP CSA
	.1.. ..			SDEXISWA	"X'40'" DUMP SWA
	..1. ....			SDEXISMDM	"X'20'" DUMP SUMMARY DUMP DATA
	...1 ....			SDEXINSMD	"X'10'" DON'T DUMP SUMMARY DUMP

Table 724. Structure SDEXI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1...		SDEXINAPS	"X'08'" DO NOT DUMP ALL PSA
		.... .1..		SDEXINASQ	"X'04'" DO NOT DUMP SQA
		.... ..1.		SDEXIANUC	"X'02'" DUMP ALL NUCLEUS
		.... ...1		SDEXIDEFS	"X'01'" DEFAULTS
70	(46)	CHARACTER	4	SDEXISDA2	EXTENDED SDATA OPTIONS
70	(46)	BITSTRING	1	SDEXIEXIT1	SDATA OPTIONS EXIT ROUTINES
Bit definitions:					
		1... ....		SDEXIGRSQ	"X'80'" SDATA=GRSQ
		...1 ....		SDEXICOUPLE	"X'10'" SDATA=COUPLE
		.... 1...		SDEXIXESDATA	"X'08'" SDATA=XESDATA
		.... ..1.		SDEXIWLMDATA	"X'02'" SDATA=WLMDATA
71	(47)	BITSTRING	1	SDEXIEXIT2	SDATA OPTIONS EXIT ROUTINES
Bit definitions:					
		..1. ....		SDEXISERVERS	"X'20'" SDATA=SERVERS
72	(48)	BITSTRING	1	SDEXISDT3	SDATA OPTIONS
Bit definitions:					
		1... ....		SDEXINDEF	"X'80'" NODEFAULTS
		.1.. ....		SDEXIIIO	"X'40'" DO I/O AREAS
		..1. ....		SDEXIHCAS	"X'20'" Dump HCSA by ASID
		...1 ....		SDEXIHCNO	"X'10'" Dump No Owner HCSA
		.... 1...		SDEXIHCSY	"X'08'" Dump System owned HCSA
73	(49)	BITSTRING	1	SDEXISDT4	SDATA OPTIONS
74	(4A)	CHARACTER	2		Reserved
76	(4C)	BITSTRING	1	SDEXIFLAGS	
Bit definitions:					

Table 724. Structure SDEXI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		SDEXIADDRESSRANGE	"X'80'" An address range has been provided, instead of placing the data into the provided buffer. The data must be in the current primary space or be addressable by an ALET that is currently on the DU-AL or the PASN AL. This may only be used if bit SdexiDRPS is off or (if it is on) if creating an address space or data space record. When SdexiDRPS is off, the storage range must represent the primary address space, with start address in SdexiCDAD and end address in SdexiRangeEnd. When SdexiDRPS is on for address space storage, the start address is in SdexiDrpxLAD, the end address in SdexiRangeEnd, and the ALET is in SdexiRangeALET. Use an ALET of 0 for the primary address space. When SdexiDRPS is on for data space storage, the start address is in SdexiDrpxLAD, the end address in SdexiRangeEnd, and the ALET is in SdexiRangeALET. In all cases, the start address will be rounded down to the nearest page boundary. The end address will be rounded up to the last byte of the page containing the input end address. For 64bit ranges, set the start address in SdexiDrpx64LAD or SdexiCDAD64 following the above rules. Then, instead of providing an end address in SdexiRangeEnd (which can only hold a 31bit address), set the SdexiRangeLengthInPages bit, then provide a count of the number of pages to capture in SdexiRangePageCount. Keep in mind that the starting address will be rounded down to a page boundary if it is not supplied on a page boundary - this may have an adverse affect on your page range. There is a hard 8T limit on the exit buffer, so the page count cannot be bigger than 7FFFFFFF.
		.1.. ....		SDEXIADDRESS64	"X'40'" A 64-bit address has been provided in SdexiCDAD64.
		..1. ....		SDEXIRANGELENGTHINPAGES	"X'20'" If set and processing an address range, the SdexiRangePageCount field will be used as the number of pages to capture instead of SdexiRangeEnd
		...1 ....		SDEXIFLAG3	"X'10'" Reserved
		.... 1..		SDEXIFLAG4	"X'08'" Reserved
		.... .1..		SDEXIFLAG5	"X'04'" Reserved
		.... ..1.		SDEXIUTOKENPROVIDED	"X'02'" If set, it indicates that Exit has provided UtokenPtr in SdexiUtokenPtr field. Exits intending to exploit Utoken support must populate the UtokenArea as expected in addition to setting this flag to request DUMPSRV to capture global storage associated with supplied usertoken(s).
		.... ...1		SDEXIREMOTE	"X'01'" This remote dump resulted from a Remote dump request
77	(4D)	CHARACTER	3		RESERVED
80	(50)	ADDRESS	4	SDEXIRANGEEND	The entire page containing this byte will be dumped.



Table 724. Structure SDEXI (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
80	(50)	SIGNED	4	SDEXIRANGEPAGECOUNT	The number of pages to capture
84	(54)	SIGNED	4	SDEXIRANGEALET	
88	(58)	ADDRESS	4	SDEXIPROBDESC@	Address of ProbDesc area for dump. 0 if no such area exists.
92	(5C)	ADDRESS	4	SDEXIINTOKEN@	Address of 32-byte incident token for dump.
96	(60)	CHARACTER	8	SDEXICDAD64	64-bit address of data in buffer. Must be set by exit if bit SdexiDRP2 is set. This address should be on a page boundary, and the buffer should contain 4096 bytes of data representing the contents of the entire page.
104	(68)	ADDRESS	4	SDEXIUTOKENPTR	Address of DUMPSRV supplied Utoken area. Set by SDUMP. Exits intending to use this area must also set SdexiUtokenProvided.
108	(6C)	CHARACTER	4		Available
108	(6C)	X'70'	0	SDEXI_LEN	"*-SDEXI"

Table 725. Structure SDEXIALST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIALST	LIST OF ASID WHICH ARE INCLUDED IN THE DUMP. IT IS BUILT BY SDUMP AND USED BY THE EXITS
0	(0)	SIGNED	2	SDEXIALST#	NUMBER OF ENTRIES
2	(2)	CHARACTER	2	SDEXIALST_ARRAY	An array of ASIDs, the number of which is indicated by SdexiALST#
2	(2)	SIGNED	2	SDEXIALST_ENTRY	An ASID within the array.
2	(2)	X'40'	0	SDEXIMAXA	"64" MAXIMUM NUMBER OF ENTRIES IN THE ASID LIST
2	(2)	X'4'	0	SDEXIALST_LEN	"*-SDEXIALST"

Table 726. Structure SDEXIDRPX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIDRPX	Dump record prefix to be filled in by the exit
0	(0)	CHARACTER	3	SDEXIDRPXID	Set by SDUMP. Exit should not change.
0	(0)	CHARACTER	2		DRPX identifier
2	(2)	CHARACTER	1	SDEXIDRPXIDV	DRPX version
3	(3)	BITSTRING	1	SDEXIDRPXLEN	Set by SDUMP. Exit should not change.
4	(4)	CHARACTER	16	SDEXIDRPXAS	ASCB information
4	(4)	CHARACTER	2	SDEXIDRPXAST	Address space type code. See Constants SdexiDrpxAST_xxx
6	(6)	SIGNED	2	SDEXIDRPXASH	
8	(8)	SIGNED	4	SDEXIDRPXAS1	
12	(C)	CHARACTER	8	SDEXIDRPXASC	Qualifier 2
12	(C)	SIGNED	4	SDEXIDRPXAS2	
16	(10)	SIGNED	4	SDEXIDRPXAS3	
20	(14)	ADDRESS	4	SDEXIDRPXLAD	Logical address. This should be on a page boundary.
24	(18)	SIGNED	4	SDEXIDRPXSEQ	Set by SDUMP. Exit should not change.

Table 726. Structure SDEXIDRPX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
28	(1C)	CHARACTER	8		Set by SDUMP. Exit should not change.
36	(24)	CHARACTER	28	SDEXIDRPXTYPD	Record type specific data.
36	(24)	CHARACTER	7		
43	(2B)	BITSTRING	1	SDEXIDRPXSENSITIVEATTR	Sensitivity attributes of the page Unknown=0, Sensitive=1, NotSensitive=2
64	(40)	X'1'	0	SDEXIDRPXSENSITIVE	"1" Sensitive=yes
64	(40)	X'2'	0	SDEXIDRPXNOTSENSITIVE	"2" Sensitive=no
64	(40)	X'40'	0	SDEXIDRPX_LEN	"*-SDEXIDRPX"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_CV(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_CV_KEY	Key should be in bits 0-3 of the field, not bits 4-7
36	(24)	X'1'	0	SDEXIDRPXTYPD_CV_LEN	"*-SDEXIDRPXTYPD_CV"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_DS(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_DS_KEY	Key should be in bits 0-3 of the field, not bits 4-7
37	(25)	CHARACTER	5		Reserved
42	(2A)	CHARACTER	2		Reserved
44	(2C)	ADDRESS	4	SDEXIDRPXTYPD_DS_ASTE	Set by SDUMP. Exit should not change.
48	(30)	CHARACTER	8	SDEXIDRPXTYPD_DS_STOKEN	STOKEN
48	(30)	X'14'	0	SDEXIDRPXTYPD_DS_LEN	"*-SDEXIDRPXTYPD_DS"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_SC(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_SC_KEY	Key should be in bits 0-3 of the field, not bits 4-7
37	(25)	CHARACTER	5		Reserved
42	(2A)	BITSTRING	1	SDEXIDRPXTYPD_SC_STYP	Storage Type
Bit definitions:					
		1... ....		SDEXIDRPXTYPD_SC_COMM	"X'80'" Storage is in common
		.1.. ....		SDEXIDRPXTYPD_SC_AAFLAG	"X'40'" Absolute address supplied in SdexIdrpXTypd_SC_AAPtr
43	(2B)	CHARACTER	1		Reserved
44	(2C)	ADDRESS	4	SDEXIDRPXTYPD_SC_AAPTR	Absolute address
44	(2C)	X'C'	0	SDEXIDRPXTYPD_SC_LEN	"*-SDEXIDRPXTYPD_SC"

Table 727. Structure SDEXIDRPX64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIDRPX64	Dump record prefix v2 to be filled in by the exit
0	(0)	CHARACTER	20		
20	(14)	CHARACTER	8	SDEXIDRPX64LAD	Logical address. This should be on a page boundary.
20	(14)	ADDRESS	4	SDEXIDRPX64LADHI	High-order word of LAD
24	(18)	ADDRESS	4	SDEXIDRPX64LADLO	Low-order word of LAD
28	(1C)	CHARACTER	32		
28	(1C)	X'C3E5'	0	SDEXIDRPXAST_ADDRSPAC	"C'CV'" Address space
28	(1C)	X'C4E2'	0	SDEXIDRPXAST_DATASPACE	"C'DS'" Data space
28	(1C)	X'E2C3'	0	SDEXIDRPXAST_COMPDATA	"C'SC'" Component data

Table 727. Structure SDEXIDRPX64 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
28	(1C)	X'100'	0	SDEXIUTOKENAREASIZE	"256" Size of SdxiUtokenArea
28	(1C)	X'14'	0	MAXXUTOKENENTRIES	"20" Maximum Utoken entries allowed in SDexiUtokenArea
64	(40)	X'40'	0	SDEXIDRPX64_LEN	"*-SDEXIDRPX64"

Table 728. Cross Reference for IHASDEXI

Name	Offset	Hex	Tag
MAXXUTOKENENTRIES	1C		14
SDEXI	0		
SDEXI_LEN	6C		70
SDEXIADDRESSRANGE	4C		80
SDEXIADDRESS64	4C		40
SDEXIALP	40		
SDEXIALST	0		
SDEXIALST_ARRAY	2		
SDEXIALST_ENTRY	2		
SDEXIALST_LEN	2		4
SDEXIALST#	0		
SDEXIANUC	45		2
SDEXIAPSA	44		80
SDEXIASID	1A		
SDEXIBFAD	C		
SDEXIBFLN	10		
SDEXICDAD	20		
SDEXICDAD64	60		
SDEXICOMM	0		
SDEXICOM1	0		
SDEXICOUPLE	46		10
SDEXICSA	45		80
SDEXIDEFS	45		1
SDEXIDRPA	3C		
SDEXIDRPS	3C		80
SDEXIDRPX	0		
SDEXIDRPX_LEN	40		40
SDEXIDRPXAS	4		
SDEXIDRPXASC	C		
SDEXIDRPXASH	6		
SDEXIDRPXAST	4		
SDEXIDRPXAST_ADDRSPAC	1C		C3E5
SDEXIDRPXAST_COMPDATA	1C		E2C3

Table 728. Cross Reference for IHASDEXI (continued)

Name	Offset	Hex Tag
SDEXIDRPXAST_DATASPAC	1C	C4E2
SDEXIDRPXAS1	8	
SDEXIDRPXAS2	C	
SDEXIDRPXAS3	10	
SDEXIDRPXID	0	
SDEXIDRPXIDV	2	
SDEXIDRPXLAD	14	
SDEXIDRPXLEN	3	
SDEXIDRPXNOTSENSITIVE	40	2
SDEXIDRPXSENSITIVE	40	1
SDEXIDRPXSENSITIVEATTR	2B	
SDEXIDRPXSEQ	18	
SDEXIDRPXTYPD	24	
SDEXIDRPXTYPD_CV	24	
SDEXIDRPXTYPD_CV_KEY	24	
SDEXIDRPXTYPD_CV_LEN	24	1
SDEXIDRPXTYPD_DS	24	
SDEXIDRPXTYPD_DS_ASTE	2C	
SDEXIDRPXTYPD_DS_KEY	24	
SDEXIDRPXTYPD_DS_LEN	30	14
SDEXIDRPXTYPD_DS_STOKEN	30	
SDEXIDRPXTYPD_SC	24	
SDEXIDRPXTYPD_SC_AAFLAG	2A	40
SDEXIDRPXTYPD_SC_AAPTR	2C	
SDEXIDRPXTYPD_SC_COMM	2A	80
SDEXIDRPXTYPD_SC_KEY	24	
SDEXIDRPXTYPD_SC_LEN	2C	C
SDEXIDRPXTYPD_SC_STYP	2A	
SDEXIDRPX64	0	
SDEXIDRPX64_LEN	40	40
SDEXIDRPX64LAD	14	
SDEXIDRPX64LADHI	14	
SDEXIDRPX64LADLO	18	
SDEXIEXIT1	46	
SDEXIEXIT2	47	
SDEXIFKEY	18	
SDEXIFLAGS	4C	
SDEXIFLAG1	A	
SDEXIFLAG2	B	

Table 728. Cross Reference for IHASDEXI (continued)

Name	Offset	Hex Tag
SDEXIFLAG3	4C	10
SDEXIFLAG4	4C	8
SDEXIFLAG5	4C	4
SDEXIGRSQ	46	80
SDEXIHCAS	48	20
SDEXIHCNO	48	10
SDEXIHCSY	48	8
SDEXIINTOKEN@	5C	
SDEXIIO	48	40
SDEXIKEYS	18	
SDEXILPA	44	2
SDEXILSQA	44	8
SDEXIMAXA	2	40
SDEXINAPS	45	8
SDEXINASQ	45	4
SDEXINDEF	48	80
SDEXINOTSENSITIVE	A	10
SDEXINSMD	45	10
SDEXINUC	44	20
SDEXIORAD	14	
SDEXIPROBDESC@	58	
SDEXIPSA	44	40
SDEXIRANGEALET	54	
SDEXIRANGEEND	50	
SDEXIRANGELENGTHINPAGES	4C	20
SDEXIRANGEPAGECOUNT	50	
SDEXIREMOTE	4C	1
SDEXIRGN	44	4
SDEXISDAO	44	
SDEXISDA2	46	
SDEXISDTA	44	
SDEXISDT1	44	
SDEXISDT2	45	
SDEXISDT3	48	
SDEXISDT4	49	
SDEXISENSITIVE	A	20
SDEXISERVERS	47	20
SDEXISKEY	19	
SDEXISMDM	45	20

Table 728. Cross Reference for IHASDEXI (continued)

Name	Offset	Hex Tag
SDEXISQA	44	10
SDEXISVAD	2C	
SDEXISWA	45	40
SDEXITRT	44	1
SDEXIUTOKENAREASIZE	1C	100
SDEXIUTOKENPROVIDED	4C	2
SDEXIUTOKENPTR	68	
SDEXIWKAD	34	
SDEXIWKLN	38	
SDEXIWLMDATA	46	2
SDEXIXESDATA	46	8

## IHASDMSE information

### IHASDMSE programming interface information

IHASDMSE is a programming interface.

### IHASDMSE heading information

**Common name:** SDUMPX Multisystem SDUMP Exit parameter area

**Macro ID:** IHASDMSE

**DSECT name:** SDMSE SDMSE\_MODEL SDMSE\_ASIDLST SDMSE\_STORAGE SDMSE\_STORAGE64  
SDMSE\_JOBLIST SDMSE\_DSPLIST SDMSE\_SUBPLST SDMSE\_KEYLIST

**Owning component:** SDUMP (SCDMP)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: 252  
Key: 0  
Residency: Above 16M

**Size:**

```

SDMSE      -- X'0060' bytes
SDMSE_MODEL -- X'0008' bytes
SDMSE_ASIDLST -- X'0006' bytes
+ X'0002' bytes for each entry
after the first
SDMSE_STORAGE -- X'0014' bytes
+ X'0010' bytes for each entry
after the first
SDMSE_STORAGE64 -- X'001C' bytes
+ X'0018' bytes for each entry
after the first
SDMSE_JOBLIST -- X'000C' bytes
+ X'0010' bytes for each entry
after the first
SDMSE_DSPLIST -- X'0014' bytes
+ X'0018' bytes for each entry
after the first
SDMSE_SUBPLST -- X'0008' bytes
+ X'0004' bytes for each entry
after the first
SDMSE_KEYLIST -- X'0005' bytes
+ X'0001' bytes for each entry
after the first

```

**Created by:** Created by SDUMP and passed via R1 to multisystem Sdump exit

**Pointed to by:** R1 on entry to multisystem SDUMP exit

**Serialization:** None required

**Function:** Maps the parameter information passed to the multisystem Sdump exit.

## IHASDMSE mapping

Table 729. Structure SDMSE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDMSE	
0	(0)	BITSTRING	1	SDMSE_VERSION	Initial version is 0. This can be used by the exit to tell just how the parameter area is mapped.
1	(1)	CHARACTER	3		Unused
4	(4)	ADDRESS	4	SDMSE_INPUT_PROBDESC_ADDR	Address of problem description information provided via PROBDESC keyword when the SDUMP was initiated on a remote system. If this pointer is 0, no such information was provided. Otherwise, the area is in the format described for that keyword.
8	(8)	ADDRESS	4	SDMSE_INPUT_WORKAREA_ADDR	Address of 4096-byte workarea that the exit can use to build information for use by SDUMP. This field is an input value for the exit.
12	(C)	ADDRESS	4	SDMSE_OUTPUT_WORKAREA_ADDR	Address of workarea that the exit provided via GETMAIN or STORAGE OBTAIN when the input workarea was not large enough. This field is to be set by the exit when storage is so obtained. SDUMP will FREEMAIN this storage. The length and subpool and key must also be provided.
16	(10)	ADDRESS	4	SDMSE_OUTPUT_WORKAREA_LENGTH	

Table 729. Structure SDMSE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Length of workarea pointed to by the output workarea. SDUMP will FREEMAIN this area. This field is to be set by the exit when storage is so obtained.
20	(14)	BITSTRING	1	SDMSE_OUTPUT_WORKAREA_SUBPOOL	Subpool of output workarea. This field is to be set by the exit when storage is so obtained.
21	(15)	BITSTRING	1	SDMSE_OUTPUT_WORKAREA_KEY	Key of output workarea (must be in range 0-X'F0'). This field is to be set by the exit when storage is so obtained.
22	(16)	CHARACTER	2		Reserved
24	(18)	ADDRESS	4	SDMSE_OUTPUT_ASIDLST_ADDR	This field should be set if the exit has indicated ASID(s) to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_ASIDLST
28	(1C)	ADDRESS	4	SDMSE_OUTPUT_STORAGE_ADDR	This field should be set if the exit has indicated Storage Ranges to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE or DSECT Sdmse_Storage64
32	(20)	ADDRESS	4	SDMSE_OUTPUT_JOBLIST_ADDR	This field should be set if the exit has indicated a list of jobnames to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_JOBLIST
36	(24)	ADDRESS	4	SDMSE_OUTPUT_DSPLIST_ADDR	This field should be set if the exit has indicated a list of data space names by which data spaces are to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_DSPLIST
40	(28)	ADDRESS	4	SDMSE_OUTPUT_SUBPLST_ADDR	This field should be set if the exit has indicated a list of subpools to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_SUBPLST
44	(2C)	ADDRESS	4	SDMSE_OUTPUT_KEYLIST_ADDR	This field should be set if the exit has indicated a list of keys to be incorporated in the dump. This is ignored unless SDMSE_SUBPLST_ADDR is also specified. The area pointed to by this field is mapped by DSECT SDMSE_KEYLIST
48	(30)	CHARACTER	8		Reserved
56	(38)	CHARACTER	8	SDMSE_SDATA_OPTIONS	These are mapped in the same order as they appear in the SDUMP parameter list. The desired subfields should be set if the exit has indicated SDATA options for the dump.
56	(38)	BITSTRING	1	SDMSE_SDATA_BYTE0	This field should be set if the exit has indicated SDATA options for the dump.

## Bit definitions:

1... ....	SDMSE_SDATA_ALLPSA	"X'80'" Corresponds to SDUMPX SDATA option ALLPSA
.1.. ....	SDMSE_SDATA_PSA	"X'40'" Corresponds to SDUMPX SDATA option PSA
..1. ....	SDMSE_SDATA_NUC	"X'20'" Corresponds to SDUMPX SDATA option NUC



Table 729. Structure SDMSE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		SDMSE_SDATA_SQA	"X'10'" Corresponds to SDUMPX SDATA option SQA
		.... 1...		SDMSE_SDATA_LSQA	"X'08'" Corresponds to SDUMPX SDATA option LSQA
		.... .1..		SDMSE_SDATA_RGN	"X'04'" Corresponds to SDUMPX SDATA option RGN
		.... ..1.		SDMSE_SDATA_LPA	"X'02'" Corresponds to SDUMPX SDATA option LPA
		.... ...1		SDMSE_SDATA_TRT	"X'01'" Corresponds to SDUMPX SDATA option TRT
57	(39)	BITSTRING	1	SDMSE_SDATA_BYTE1	This field should be set if the exit has indicated SDATA options for the dump.
Bit definitions:					
		1... ....		SDMSE_SDATA_CSA	"X'80'" Corresponds to SDUMPX SDATA option CSA
		.1.. ....		SDMSE_SDATA_SWA	"X'40'" Corresponds to SDUMPX SDATA option SWA
		..1. ....		SDMSE_SDATA_SUM	"X'20'" Corresponds to SDUMPX SDATA option SUM
		.... ..1.		SDMSE_SDATA_ALLNUC	"X'02'" Corresponds to SDUMPX SDATA option ALLNUC
		.... ...1		SDMSE_SDATA_DEFS	"X'01'" Corresponds to SDUMPX SDATA option DEFS
58	(3A)	BITSTRING	1	SDMSE_SDATA_BYTE2	This field should be set if the exit has indicated SDATA options for the dump.
Bit definitions:					
		1... ....		SDMSE_SDATA_GRSQ	"X'80'" Corresponds to SDUMPX SDATA option GRSQ
		...1 ....		SDMSE_SDATA_COUPLE	"X'10'" Corresponds to SDUMPX SDATA option COUPLE
		.... 1...		SDMSE_SDATA_XESDATA	"X'08'" Corresponds to SDUMPX SDATA option XESDATA
		.... ..1.		SDMSE_SDATA_WLM	"X'02'" Corresponds to SDUMPX SDATA option XESDATA
59	(3B)	BITSTRING	1	SDMSE_SDATA_BYTE3	Sdata Byte 3
Bit definitions:					
		..1. ....		SDMSE_SDATA_SERVERS	"X'20'" Corresponds to SDUMPX SDATA option SERVERS
60	(3C)	BITSTRING	1	SDMSE_SDATA_BYTE4	Sdata Byte 4
Bit definitions:					
		.1.. ....		SDMSE_SDATA_IO	"X'40'" Corresponds to SDUMPX SDATA option IO
		..1. ....		SDMSE_SDATA_HCAS	"X'20'" Corresponds to SDUMPX SDATA option HCAS
		...1 ....		SDMSE_SDATA_HCNO	"X'10'" Corresponds to SDUMPX SDATA option HCNO
		.... 1...		SDMSE_SDATA_HCSY	"X'08'" Corresponds to SDUMPX SDATA option HCSY
61	(3D)	BITSTRING	1	SDMSE_SDATA_BYTE5	Sdata Byte 5 - Reserved, must be 0

Table 729. Structure SDMSE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
62	(3E)	CHARACTER	2	SDMSE_SDATA_RSVD	Reserved, must be 0
64	(40)	ADDRESS	4	SDMSE_INPUT_ASIDLST_ADDR	This field indicates the ASID(s) incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_ASIDLST
68	(44)	ADDRESS	4	SDMSE_INPUT_STORAGE_ADDR	This field indicates the Storage Ranges incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE. (Note: when SDUMP LIST64 parameter options are in effect then this field is set to zero and the SDMSE_INPUT_STORAGE64_ADDR field is set instead. @L2A-
72	(48)	ADDRESS	4	SDMSE_INPUT_SUBPLST_ADDR	This field indicates the list of subpools incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_SUBPLST
76	(4C)	ADDRESS	4	SDMSE_INPUT_KEYLIST_ADDR	This field indicates the list of keys incorporated in the dump. This will only be specified if SDMSE_SUBPLST_ADDR is also specified. The area pointed to by this field is mapped by DSECT SDMSE_KEYLIST
80	(50)	ADDRESS	4	SDMSE_INPUT_STORAGE64_ADDR	This field indicates the Storage Ranges incorporated in the dump when SDUMP LIST64 parameter options are in effect. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE64
84	(54)	CHARACTER	4	SDMSE_FLAGS	Exit parm list flags
84	(54)	BITSTRING	1	SDMSE_FLAGS1	Flags byte 1
Bit definitions:					
	1... ....			SDMSE_OUTPUT_STORAGE_TYPE64	"X'80'" Indicates that a non-zero value in SDMSE_OUTPUT_STORAGE_ADDR addresses a range list with format SDMSE_STORAGE64 rather than an SDMSE_STORAGE format
85	(55)	CHARACTER	3	SDMSE_FLAGS_RSVD	Reserved - must be zero
88	(58)	CHARACTER	8		Unused @L2A-
88	(58)	X'0'	0	SDMSE_VERSION_CURRENT	"0"
88	(58)	X'0'	0	SDMSE_VERSION_0	"0"
88	(58)	X'60'	0	SDMSE_LEN	"*-SDMSE"

Table 730. Structure SDMSE\_MODEL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_MODEL	Model entry
0	(0)	CHARACTER	4	SDMSE_MODEL_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_MODEL_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	SDMSE_MODEL_ENTRY	An entry
4	(4)	X'8'	0	SDMSE_MODEL_LEN	"*-SDMSE_MODEL"

Table 731. Structure SDMSE\_ASIDLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_ASIDLST	
0	(0)	CHARACTER	4	SDMSE_ASIDLST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_ASIDLST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	2	SDMSE_ASIDLST_ENTRY	This represents an array of ASIDs
4	(4)	SIGNED	2	SDMSE_ASIDLST_ASID	The ASID
4	(4)	X'6'	0	SDMSE_ASIDLST_LEN	"*-SDMSE_ASIDLST"

Table 732. Structure SDMSE\_STORAGE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_STORAGE	
0	(0)	CHARACTER	4	SDMSE_STORAGE_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_STORAGE_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	16	SDMSE_STORAGE_ENTRY	This represents an array of start/end address pairs
4	(4)	CHARACTER	8	SDMSE_STORAGE_STOKEN	STOKEN of storage
12	(C)	ADDRESS	4	SDMSE_STORAGE_START	Start of range
16	(10)	ADDRESS	4	SDMSE_STORAGE_END	End of range
16	(10)	X'14'	0	SDMSE_STORAGE_LEN	"*-SDMSE_STORAGE"

Table 733. Structure SDMSE\_STORAGE64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_STORAGE64	
0	(0)	CHARACTER	4	SDMSE_STORAGE64_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_STORAGE64_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	24	SDMSE_STORAGE64_ENTRY	This represents an array of start/end 64-bit address pairs
4	(4)	CHARACTER	8	SDMSE_STORAGE64_STOKEN	STOKEN of storage
12	(C)	CHARACTER	8	SDMSE_STORAGE64_START	Start of range
20	(14)	CHARACTER	8	SDMSE_STORAGE64_END	End of range
20	(14)	X'1C'	0	SDMSE_STORAGE64_LEN	"*-SDMSE_STORAGE64"

Table 734. Structure SDMSE\_JOBLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_JOBLIST	
0	(0)	CHARACTER	4	SDMSE_JOBLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_JOBLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	8	SDMSE_JOBLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDMSE_JOBLIST_NAME	The jobname

Table 734. Structure SDMSE\_JOBLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	X'C'	0	SDMSE_JOBLIST_LEN	"*-SDMSE_JOBLIST"

Table 735. Structure SDMSE\_DSPLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_DSPLIST	
0	(0)	CHARACTER	4	SDMSE_DSPLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_DSPLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	16	SDMSE_DSPLIST_ENTRY	This represents an array of data space owners and names
4	(4)	CHARACTER	8	SDMSE_DSPLIST_OWNER	The owner of the data space: this can be by jobname or by ASID
4	(4)	CHARACTER	8	SDMSE_DSPLIST_OWNER_JOBNAME	Fill this in, left-justified, padded with blanks, if specifying a jobname as the owner.
4	(4)	CHARACTER	6	SDMSE_DSPLIST_OWNER_ZEROES	Make sure this is zeroes if specifying an ASID as the owner.
10	(A)	SIGNED	2	SDMSE_DSPLIST_OWNER_ASID	Fill this in, zeroing the previous field too, if specifying an ASID as the owner.
12	(C)	CHARACTER	8	SDMSE_DSPLIST_NAME	The data space name
12	(C)	X'14'	0	SDMSE_DSPLIST_LEN	"*-SDMSE_DSPLIST"

Table 736. Structure SDMSE\_SUBPLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_SUBPLST	
0	(0)	CHARACTER	4	SDMSE_SUBPLST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_SUBPLST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	4	SDMSE_SUBPLST_ENTRY	This represents an array of ASID/Subpool pairs
4	(4)	SIGNED	2	SDMSE_SUBPLST_ASID	The ASID to which the subpool applies
6	(6)	SIGNED	2	SDMSE_SUBPLST_SUBPOOL	The subpool
6	(6)	X'8'	0	SDMSE_SUBPLST_LEN	"*-SDMSE_SUBPLST"

Table 737. Structure SDMSE\_KEYLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_KEYLIST	
0	(0)	CHARACTER	4	SDMSE_KEYLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_KEYLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	1	SDMSE_KEYLIST_ENTRY	This represents an array of KEYS which are applied to the provided subpools
4	(4)	BITSTRING	1	SDMSE_KEYLIST_KEY	The key (must be X'00'-X'F0', not 0-15)

Table 737. Structure SDMSE\_KEYLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	X'5'	0	SDMSE_KEYLIST_LEN	"*-SDMSE_KEYLIST"

Table 738. Cross Reference for IHASDMSE

Name	Offset	Hex	Tag
SDMSE	0		
SDMSE_ASIDLST	0		
SDMSE_ASIDLST_ASID	4		
SDMSE_ASIDLST_ENTRY	4		
SDMSE_ASIDLST_HEADER	0		
SDMSE_ASIDLST_LEN	4		6
SDMSE_ASIDLST_LENGTH	0		
SDMSE_DSPLIST	0		
SDMSE_DSPLIST_ENTRY	4		
SDMSE_DSPLIST_HEADER	0		
SDMSE_DSPLIST_LEN	C		14
SDMSE_DSPLIST_LENGTH	0		
SDMSE_DSPLIST_NAME	C		
SDMSE_DSPLIST_OWNER	4		
SDMSE_DSPLIST_OWNER_ASID	A		
SDMSE_DSPLIST_OWNER_JOBNAME	4		
SDMSE_DSPLIST_OWNER_ZEROES	4		
SDMSE_FLAGS	54		
SDMSE_FLAGS_RSVD	55		
SDMSE_FLAGS1	54		
SDMSE_INPUT_ASIDLST_ADDR	40		
SDMSE_INPUT_KEYLIST_ADDR	4C		
SDMSE_INPUT_PROBDESC_ADDR	4		
SDMSE_INPUT_STORAGE_ADDR	44		
SDMSE_INPUT_STORAGE64_ADDR	50		
SDMSE_INPUT_SUBPLST_ADDR	48		
SDMSE_INPUT_WORKAREA_ADDR	8		
SDMSE_JOBLIST	0		
SDMSE_JOBLIST_ENTRY	4		
SDMSE_JOBLIST_HEADER	0		
SDMSE_JOBLIST_LEN	4		C
SDMSE_JOBLIST_LENGTH	0		
SDMSE_JOBLIST_NAME	4		
SDMSE_KEYLIST	0		
SDMSE_KEYLIST_ENTRY	4		

Table 738. Cross Reference for IHASDMSE (continued)

Name	Offset	Hex Tag
SDMSE_KEYLIST_HEADER	0	
SDMSE_KEYLIST_KEY	4	
SDMSE_KEYLIST_LEN	4	5
SDMSE_KEYLIST_LENGTH	0	
SDMSE_LEN	58	60
SDMSE_MODEL	0	
SDMSE_MODEL_ENTRY	4	
SDMSE_MODEL_HEADER	0	
SDMSE_MODEL_LEN	4	8
SDMSE_MODEL_LENGTH	0	
SDMSE_OUTPUT_ASIDLST_ADDR	18	
SDMSE_OUTPUT_DSPLIST_ADDR	24	
SDMSE_OUTPUT_JOBLIST_ADDR	20	
SDMSE_OUTPUT_KEYLIST_ADDR	2C	
SDMSE_OUTPUT_STORAGE_ADDR	1C	
SDMSE_OUTPUT_STORAGE_TYPE64	54	80
SDMSE_OUTPUT_SUBPLST_ADDR	28	
SDMSE_OUTPUT_WORKAREA_ADDR	C	
SDMSE_OUTPUT_WORKAREA_KEY	15	
SDMSE_OUTPUT_WORKAREA_LENGTH	10	
SDMSE_OUTPUT_WORKAREA_SUBPOOL	14	
SDMSE_SDATA_ALLNUC	39	2
SDMSE_SDATA_ALLPSA	38	80
SDMSE_SDATA_BYTE0	38	
SDMSE_SDATA_BYTE1	39	
SDMSE_SDATA_BYTE2	3A	
SDMSE_SDATA_BYTE3	3B	
SDMSE_SDATA_BYTE4	3C	
SDMSE_SDATA_BYTE5	3D	
SDMSE_SDATA_COUPLE	3A	10
SDMSE_SDATA_CSA	39	80
SDMSE_SDATA_DEFS	39	1
SDMSE_SDATA_GRSQ	3A	80
SDMSE_SDATA_HCAS	3C	20
SDMSE_SDATA_HCNO	3C	10
SDMSE_SDATA_HCSY	3C	8
SDMSE_SDATA_IO	3C	40
SDMSE_SDATA_LPA	38	2
SDMSE_SDATA_LSQA	38	8

Table 738. Cross Reference for IHASDMSE (continued)

Name	Offset	Hex Tag
SDMSE_SDATA_NUC	38	20
SDMSE_SDATA_OPTIONS	38	
SDMSE_SDATA_PSA	38	40
SDMSE_SDATA_RGN	38	4
SDMSE_SDATA_RSVD	3E	
SDMSE_SDATA_SERVERS	3B	20
SDMSE_SDATA_SQA	38	10
SDMSE_SDATA_SUM	39	20
SDMSE_SDATA_SWA	39	40
SDMSE_SDATA_TRT	38	1
SDMSE_SDATA_WLM	3A	2
SDMSE_SDATA_XESDATA	3A	8
SDMSE_STORAGE	0	
SDMSE_STORAGE_END	10	
SDMSE_STORAGE_ENTRY	4	
SDMSE_STORAGE_HEADER	0	
SDMSE_STORAGE_LEN	10	14
SDMSE_STORAGE_LENGTH	0	
SDMSE_STORAGE_START	C	
SDMSE_STORAGE_STOKEN	4	
SDMSE_STORAGE64	0	
SDMSE_STORAGE64_END	14	
SDMSE_STORAGE64_ENTRY	4	
SDMSE_STORAGE64_HEADER	0	
SDMSE_STORAGE64_LEN	14	1C
SDMSE_STORAGE64_LENGTH	0	
SDMSE_STORAGE64_START	C	
SDMSE_STORAGE64_STOKEN	4	
SDMSE_SUBPLST	0	
SDMSE_SUBPLST_ASID	4	
SDMSE_SUBPLST_ENTRY	4	
SDMSE_SUBPLST_HEADER	0	
SDMSE_SUBPLST_LEN	6	8
SDMSE_SUBPLST_LENGTH	0	
SDMSE_SUBPLST_SUBPOOL	6	
SDMSE_VERSION	0	
SDMSE_VERSION_CURRENT	58	0
SDMSE_VERSION_0	58	0

## IHASDPD information

### IHASDPD programming interface information

IHASDPD is a programming interface.

### IHASDPD heading information

<b>Common name:</b>	SDUMPX ProbDesc area mapping
<b>Macro ID:</b>	IHASDPD
<b>DSECT name:</b>	SDPD
<b>Owning component:</b>	SDUMP (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: caller-supplied Key: caller-supplied Residency: caller-supplied
<b>Size:</b>	SDPD -- X'0004' bytes + variable data SDPD_KLD -- X'000A' bytes + variable data
<b>Created by:</b>	Created by SDUMP issuer, passed via PROBDesc keyword
<b>Pointed to by:</b>	PROBDesc address field of SDUMP parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the PROBDesc parameter information

### IHASDPD mapping

Table 739. Structure SDPD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDPD	
0	(0)	CHARACTER	4	SDPD_HEADER	
0	(0)	SIGNED	4	SDPD_LENGTH	Total length of area, including this length field
4	(4)	CHARACTER	1	SDPD_DATA(0)	Entries in Key-length-data format. The SDPD_LENGTH field is used to determine how many entries there are. See SDPD_KLD.
4	(4)	X'4'	0	SDPD_LEN	"*-SDPD"

Table 740. Structure SDPD\_KLD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDPD_KLD	, Key-length-data entry
0	(0)	CHARACTER	10	SDPD_KLD_HEADER	Header
0	(0)	CHARACTER	8	SDPD_KLD_KEY	The 8-byte key. Keys beginning with "A" through "I" or with "SYS" are reserved for IBM use.
0	(0)	CHARACTER	3	SDPD_KLD_KEY_COMPPREFIX	Component identifier. IBM products should use their 3-character module prefix.



Table 740. Structure SDPD\_KLD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
3	(3)	CHARACTER	5	SDPD_KLD_KEY_COMPINFO	Component information identifier. This is up to the component to decide how to use. It can be used to differentiate between different problem description information entries for the given component. A possible use is: 2 bytes to indicate the subcomponent followed by a 3-byte number to indicate what kind of information this is.
8	(8)	SIGNED	2	SDPD_KLD_LENGTH	Length of data that follows. It does not include the length of this field itself or of the key field.
10	(A)	CHARACTER	1	SDPD_KLD_DATA(0)	Data, in whatever format the component chooses.
10	(A)	X'A'	0	SDPD_KLD_LEN	"*-SDPD_KLD"

Table 741. Cross Reference for IHASDPD

Name	Offset	Hex	Tag
SDPD	0		
SDPD_DATA	4		
SDPD_HEADER	0		
SDPD_KLD	0		
SDPD_KLD_DATA	A		
SDPD_KLD_HEADER	0		
SDPD_KLD_KEY	0		
SDPD_KLD_KEY_COMPINFO	3		
SDPD_KLD_KEY_COMPPREFIX	0		
SDPD_KLD_LEN	A		A
SDPD_KLD_LENGTH	8		
SDPD_LEN	4		4
SDPD_LENGTH	0		

## IHASDRMT information

### IHASDRMT programming interface information

IHASDRMT is a programming interface.

### IHASDRMT heading information

<b>Common name:</b>	SDUMPX REMOTE keyword information area
<b>Macro ID:</b>	IHASDRMT
<b>DSECT name:</b>	SDRMT SDRMT_MODEL SDRMT_SYSLIST SDRMT_GRPLIST SDRMT_SDATA SDRMT_ASIDLST SDRMT_STORAGE SDRMT_LIST64 SDRMT_JOBLIST SDRMT_DSPLIST SDRMT_SUBPLST SDRMT_KEYLIST SDRMT_COPY
<b>Owning component:</b>	SDUMP (SCDMP)
<b>Eye-catcher ID:</b>	NONE

**Storage attributes:** Subpool: Caller-supplied  
Key: Caller-supplied  
Residency: Caller-supplied

**Size:** Variable  
SDRMT -- X'0004' bytes  
SDRMT\_MODEL -- X'0004' bytes  
SDRMT\_SYSLIST -- X'0014' bytes  
+ X'0018' bytes for each entry  
after the first  
SDRMT\_GRPLIST -- X'001C' bytes  
+ X'0018' bytes for each entry  
after the first  
SDRMT\_SDATA -- X'000C' bytes  
SDRMT\_ASIDLST -- X'0008' bytes  
+ X'0004' bytes for each entry  
after the first  
SDRMT\_STORAGE -- X'0014' bytes  
+ X'0010' bytes for each entry  
after the first  
SDRMT\_LIST64 -- X'001C' bytes  
+ X'0018' bytes for each entry  
after the first  
SDRMT\_JOBLIST -- X'000C' bytes  
+ X'0010' bytes for each entry  
after the first  
SDRMT\_DSPLIST -- X'0014' bytes  
+ X'0018' bytes for each entry  
after the first  
SDRMT\_SUBPLST -- X'0008' bytes  
+ X'0004' bytes for each entry  
after the first  
SDRMT\_KEYLIST -- X'0008' bytes  
+ X'0004' bytes for each entry  
after the first  
SDRMT\_COPY -- X'0004' bytes

**Created by:** Created by Caller and passed as parameter on REMOTE keyword  
on SDUMPX

**Pointed to by:** SDUMPX parameter list

**Serialization:** None required

**Function:** Maps the data passed by the REMOTE keyword.

## IHASDRMT mapping

Table 742. Structure SDRMT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT	
0	(0)	SIGNED	4	SDRMT_LENGTH	Total length for REMOTE info. Data begins at SDRMT_DATA with entries contiguously defined from that point.
4	(4)	CHARACTER	1	SDRMT_DATA(0)	Start of remote data
Constants to identify the DSECT. Note that the constants ending with "_COPY" should use the SDRMT_COPY DSECT.					
4	(4)	X'4'	0	SDRMT_IDCON_SYSLIST	"4"
4	(4)	X'8'	0	SDRMT_IDCON_GRPLIST	"8"

Table 742. Structure SDRMT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	X'C'	0	SDRMT_IDCON_SDATA	"12"
4	(4)	X'D'	0	SDRMT_IDCON_SDATA_COPY	"13"
4	(4)	X'10'	0	SDRMT_IDCON_ASIDLST	"16"
4	(4)	X'11'	0	SDRMT_IDCON_ASIDLST_COPY	"17" Indicates to copy the ASIDLST used for this dump.
4	(4)	X'14'	0	SDRMT_IDCON_STORAGE	"20"
4	(4)	X'15'	0	SDRMT_IDCON_STORAGE_COPY	"21" Indicates to copy the input LISTD specification
4	(4)	X'18'	0	SDRMT_IDCON_JOBLIST	"24"
4	(4)	X'19'	0	SDRMT_IDCON_JOBLIST_COPY	"25"
4	(4)	X'1C'	0	SDRMT_IDCON_DSPLIST	"28"
4	(4)	X'1D'	0	SDRMT_IDCON_DSPLIST_COPY	"29"
4	(4)	X'20'	0	SDRMT_IDCON_SUBPLST	"32"
4	(4)	X'21'	0	SDRMT_IDCON_SUBPLST_COPY	"33"
4	(4)	X'24'	0	SDRMT_IDCON_KEYLIST	"36"
4	(4)	X'25'	0	SDRMT_IDCON_KEYLIST_COPY	"37"
4	(4)	X'28'	0	SDRMT_IDCON_LIST64	"40"
4	(4)	X'29'	0	SDRMT_IDCON_LIST64_COPY	"41" Indicates to copy the input LIST64 specification
4	(4)	X'4'	0	SDRMT_LEN	"*-SDRMT"

Table 743. Structure SDRMT\_MODEL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_MODEL	
0	(0)	CHARACTER	4	SDRMT_MODEL_HEADER	
0	(0)	SIGNED	2	SDRMT_MODEL_ID	Contains the ID of the entry
2	(2)	SIGNED	2	SDRMT_MODEL_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	1	SDRMT_MODEL_ENTRY(0)	Start of data for the entry
4	(4)	X'4'	0	SDRMT_MODEL_LEN	"*-SDRMT_MODEL"

Table 744. Structure SDRMT\_SYSLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SYSLIST	
0	(0)	CHARACTER	4	SDRMT_SYSLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_SYSLIST_ID	Use SDRMT_IDCON_SYSLIST to initialize
2	(2)	SIGNED	2	SDRMT_SYSLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	SDRMT_SYSLIST_ENTRY	This represents an array of sysname/jobname or sysname/ASID pairs
4	(4)	CHARACTER	8	SDRMT_SYSLIST_SYSNAME	The system name
12	(C)	CHARACTER	8	SDRMT_SYSLIST_JOBNAME_ASID	Area that contains either all 0s (no jobname/ASID), JOBNAME/ID, or ZEROES&ASID
12	(C)	CHARACTER	8	SDRMT_SYSLIST_JOBNAME	Fill this in, left-justified, padded with blanks, if specifying a jobname. The entire field should be 0s if neither jobname nor ASID is wanted.

Table 744. Structure SDRMT\_SYSLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	CHARACTER	6	SDRMT_SYSLIST_ZEROES	Make sure this is zeroes if specifying an ASID.
18	(12)	SIGNED	2	SDRMT_SYSLIST_ASID	Fill this in, zeroing the previous field too, if specifying an ASID.
18	(12)	X'14'	0	SDRMT_SYSLIST_LEN	"*-SDRMT_SYSLIST"

Table 745. Structure SDRMT\_GRPLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_GRPLIST	
0	(0)	CHARACTER	4	SDRMT_GRPLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_GRPLIST_ID	Use SDRMT_IDCON_GRPLIST to initialize
2	(2)	SIGNED	2	SDRMT_GRPLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	24	SDRMT_GRPLIST_ENTRY	This represents an array of group/member pairs. If all members of the group are wanted, use a member name of "*".
4	(4)	CHARACTER	8	SDRMT_GRPLIST_GRPNAME	The group name
12	(C)	CHARACTER	16	SDRMT_GRPLIST_MEMNAME	The member name
12	(C)	X'1C'	0	SDRMT_GRPLIST_LEN	"*-SDRMT_GRPLIST"

Table 746. Structure SDRMT\_SDATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SDATA	This field should be set if the caller has indicated SDATA options for the dump.
0	(0)	CHARACTER	4	SDRMT_SDATA_HEADER	
0	(0)	SIGNED	2	SDRMT_SDATA_ID	Use SDRMT_IDCON_SDATA to initialize
2	(2)	SIGNED	2	SDRMT_SDATA_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	8	SDRMT_SDATA_OPTIONS	These are mapped in the same order as they appear in the SDUMP parameter list
4	(4)	BITSTRING	1	SDRMT_SDATA_BYTE0	This field should be set if the caller has indicated SDATA options for the dump.

## Bit definitions:

1... ....	SDRMT_SDATA_ALLPSA	"X'80'" Corresponds to SDUMPX SDATA option ALLPSA
.1.. ....	SDRMT_SDATA_PSA	"X'40'" Corresponds to SDUMPX SDATA option PSA
..1. ....	SDRMT_SDATA_NUC	"X'20'" Corresponds to SDUMPX SDATA option NUC
...1 ....	SDRMT_SDATA_SQA	"X'10'" Corresponds to SDUMPX SDATA option SQA
.... 1...	SDRMT_SDATA_LSQA	"X'08'" Corresponds to SDUMPX SDATA option LSQA
.... .1..	SDRMT_SDATA_RGN	"X'04'" Corresponds to SDUMPX SDATA option RGN
.... ..1.	SDRMT_SDATA_LPA	"X'02'" Corresponds to SDUMPX SDATA option LPA

Table 746. Structure SDRMT\_SDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ...1		SDRMT_SDATA_TRT	"X'01'" Corresponds to SDUMPX SDATA option TRT
5	(5)	BITSTRING	1	SDRMT_SDATA_BYTE1	This field should be set if the caller has indicated SDATA options for the dump.
Bit definitions:					
		1... ....		SDRMT_SDATA_CSA	"X'80'" Corresponds to SDUMPX SDATA option CSA
		.1.. ....		SDRMT_SDATA_SWA	"X'40'" Corresponds to SDUMPX SDATA option SWA
		..1. ....		SDRMT_SDATA_SUM	"X'20'" Corresponds to SDUMPX SDATA option SUM
		.... 1...		SDRMT_SDATA_NOALLPSA	"X'08'" Corresponds to SDUMPX SDATA option NOALLPSA
		.... .1..		SDRMT_SDATA_NOSQA	"X'04'" Corresponds to SDUMPX SDATA option NOSQA
		.... ..1.		SDRMT_SDATA_ALLNUC	"X'02'" Corresponds to SDUMPX SDATA option ALLNUC
		.... ...1		SDRMT_SDATA_DEFS	"X'01'" Corresponds to SDUMPX SDATA option DEFS
6	(6)	BITSTRING	1	SDRMT_SDATA_BYTE2	This field should be set if the caller has indicated SDATA options for the dump.
Bit definitions:					
		1... ....		SDRMT_SDATA_GRSQ	"X'80'" Corresponds to SDUMPX SDATA option GRSQ
		...1 ....		SDRMT_SDATA_COUPLE	"X'10'" Corresponds to SDUMPX SDATA option COUPLE
		.... 1...		SDRMT_SDATA_XESDATA	"X'08'" Corresponds to SDUMPX SDATA option XESDATA
		.... ..1.		SDRMT_SDATA_WLM	"X'02'" Corresponds to SDUMPX SDATA option WLM
7	(7)	BITSTRING	1	SDRMT_SDATA_BYTE3	Sdata Byte 3
Bit definitions:					
		..1. ....		SDRMT_SDATA_SERVERS	"X'20'" Corresponds to SDUMPX SDATA option SERVERS
8	(8)	BITSTRING	1	SDRMT_SDATA_BYTE4	Sdata Byte 4
Bit definitions:					
		1... ....		SDRMT_SDATA_NODEFS	"X'80'" Corresponds to SDUMPX SDATA option NODEFS
		.1.. ....		SDRMT_SDATA_IO	"X'40'" Corresponds to SDUMPX SDATA option IO
		..1. ....		SDRMT_SDATA_HCAS	"X'20'" Corresponds to SDUMPX SDATA option HCAS
		...1 ....		SDRMT_SDATA_HCN0	"X'10'" Corresponds to SDUMPX SDATA option HCN0
		.... 1...		SDRMT_SDATA_HCSY	"X'08'" Corresponds to SDUMPX SDATA option HCSY
9	(9)	BITSTRING	1	SDRMT_SDATA_BYTE5	Sdata Byte 5 - Reserved, must be 0
10	(A)	CHARACTER	2	SDRMT_SDATA_RSVD	Reserved, must be 0

Table 746. Structure SDRMT\_SDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
10	(A)	X'C'	0	SDRMT_SDATA_LEN	"*-SDRMT_SDATA"

Table 747. Structure SDRMT\_ASIDLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_ASIDLST	
0	(0)	CHARACTER	4	SDRMT_ASIDLST_HEADER	
0	(0)	SIGNED	2	SDRMT_ASIDLST_ID	Use SDRMT_IDCON_ASIDLST to initialize
2	(2)	SIGNED	2	SDRMT_ASIDLST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	SDRMT_ASIDLST_ENTRY	This represents an array of ASIDs
4	(4)	SIGNED	4	SDRMT_ASIDLST_ASID	The ASID
4	(4)	X'8'	0	SDRMT_ASIDLST_LEN	"*-SDRMT_ASIDLST"

Table 748. Structure SDRMT\_STORAGE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_STORAGE	
0	(0)	CHARACTER	4	SDRMT_STORAGE_HEADER	
0	(0)	SIGNED	2	SDRMT_STORAGE_ID	Use SDRMT_IDCON_STORAGE to initialize
2	(2)	SIGNED	2	SDRMT_STORAGE_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	SDRMT_STORAGE_ENTRY	This represents an array of begin/end address pairs
4	(4)	CHARACTER	8	SDRMT_STORAGE_STOKEN	STOKEN of storage
12	(C)	ADDRESS	4	SDRMT_STORAGE_BEGIN@	Beginning address of range
16	(10)	ADDRESS	4	SDRMT_STORAGE_END@	Ending address of range
16	(10)	X'14'	0	SDRMT_STORAGE_LEN	"*-SDRMT_STORAGE"

Table 749. Structure SDRMT\_LIST64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_LIST64	
0	(0)	CHARACTER	4	SDRMT_LIST64_HEADER	
0	(0)	SIGNED	2	SDRMT_LIST64_ID	Use SDRMT_Idcon_List64 to initialize
2	(2)	SIGNED	2	SDRMT_LIST64_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	24	SDRMT_LIST64_ENTRY	This represents an array of begin/end address pairs
4	(4)	CHARACTER	8	SDRMT_LIST64_STOKEN	STOKEN of storage
12	(C)	CHARACTER	8	SDRMT_LIST64_BEGIN64@	Beginning address of range
20	(14)	CHARACTER	8	SDRMT_LIST64_END64@	Ending address of range
20	(14)	X'1C'	0	SDRMT_LIST64_LEN	"*-SDRMT_LIST64"

Table 750. Structure SDRMT\_JOBLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_JOBLIST	
0	(0)	CHARACTER	4	SDRMT_JOBLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_JOBLIST_ID	Use SDRMT_IDCON_JOBLIST to initialize

Table 750. Structure SDRMT\_JOBLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	SIGNED	2	SDRMT_JOBLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	8	SDRMT_JOBLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDRMT_JOBLIST_NAME	The jobname. Left-justified, padded with blanks as needed.
4	(4)	X'C'	0	SDRMT_JOBLIST_LEN	"*-SDRMT_JOBLIST"

Table 751. Structure SDRMT\_DSPLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_DSPLIST	
0	(0)	CHARACTER	4	SDRMT_DSPLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_DSPLIST_ID	Use SDRMT_IDCON_DSPLIST to initialize
2	(2)	SIGNED	2	SDRMT_DSPLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	SDRMT_DSPLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDRMT_DSPLIST_OWNER	The owner of the data space: this can be by jobname or by ASID
4	(4)	CHARACTER	8	SDRMT_DSPLIST_OWNER_JOBNAME	
					Fill this in, left-justified, padded with blanks, if specifying a jobname as the owner.
4	(4)	CHARACTER	6	SDRMT_DSPLIST_OWNER_ZEROES	Make sure this is zeroes if specifying an ASID as the owner.
10	(A)	SIGNED	2	SDRMT_DSPLIST_OWNER_ASID	Fill this in, zeroing the previous field too, if specifying an ASID as the owner.
12	(C)	CHARACTER	8	SDRMT_DSPLIST_NAME	The data space name
12	(C)	X'14'	0	SDRMT_DSPLIST_LEN	"*-SDRMT_DSPLIST"

Table 752. Structure SDRMT\_SUBPLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SUBPLST	
0	(0)	CHARACTER	4	SDRMT_SUBPLST_HEADER	
0	(0)	SIGNED	2	SDRMT_SUBPLST_ID	Use SDRMT_IDCON_SUBPLST to initialize
2	(2)	SIGNED	2	SDRMT_SUBPLST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	SDRMT_SUBPLST_ENTRY	This represents an array of ASID/Subpool pairs
4	(4)	SIGNED	2	SDRMT_SUBPLST_ASID	The ASID to which the subpool applies
6	(6)	SIGNED	2	SDRMT_SUBPLST_SUBPOOL	The subpool
6	(6)	X'8'	0	SDRMT_SUBPLST_LEN	"*-SDRMT_SUBPLST"

Table 753. Structure SDRMT\_KEYLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_KEYLIST	
0	(0)	CHARACTER	4	SDRMT_KEYLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_KEYLIST_ID	Use SDRMT_IDCON_KEYLIST to initialize
2	(2)	SIGNED	2	SDRMT_KEYLIST_LENGTH	Total length of area including this length field and the ID field

Table 753. Structure SDRMT\_KEYLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	CHARACTER	4	SDRMT_KEYLIST_ENTRY	This represents an array of KEYS which are applied to the provided subpools
4	(4)	SIGNED	4	SDRMT_KEYLIST_KEY	The key (must be X'00'-X'F0', not 0-15)
4	(4)	X'8'	0	SDRMT_KEYLIST_LEN	"*-SDRMT_KEYLIST"

Table 754. Structure SDRMT\_COPY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_COPY	
0	(0)	CHARACTER	4	SDRMT_COPY_HEADER	
0	(0)	SIGNED	2	SDRMT_COPY_ID	Use SDRMT_xxxxx_COPY to initialize
2	(2)	SIGNED	2	SDRMT_COPY_LENGTH	Total length of area including this length field and the ID field
2	(2)	X'4'	0	SDRMT_COPY_LEN	"*-SDRMT_COPY"

Table 755. Cross Reference for IHASDRMT

Name	Offset	Hex	Tag
SDRMT	0		
SDRMT_ASIDLST	0		
SDRMT_ASIDLST_ASID	4		
SDRMT_ASIDLST_ENTRY	4		
SDRMT_ASIDLST_HEADER	0		
SDRMT_ASIDLST_ID	0		
SDRMT_ASIDLST_LEN	4		8
SDRMT_ASIDLST_LENGTH	2		
SDRMT_COPY	0		
SDRMT_COPY_HEADER	0		
SDRMT_COPY_ID	0		
SDRMT_COPY_LEN	2		4
SDRMT_COPY_LENGTH	2		
SDRMT_DATA	4		
SDRMT_DSPLIST	0		
SDRMT_DSPLIST_ENTRY	4		
SDRMT_DSPLIST_HEADER	0		
SDRMT_DSPLIST_ID	0		
SDRMT_DSPLIST_LEN	C		14
SDRMT_DSPLIST_LENGTH	2		
SDRMT_DSPLIST_NAME	C		
SDRMT_DSPLIST_OWNER	4		
SDRMT_DSPLIST_OWNER_ASID	A		
SDRMT_DSPLIST_OWNER_JOBNAME	4		



Table 755. Cross Reference for IHASDRMT (continued)

Name	Offset	Hex Tag
SDRMT_DSPLIST_OWNER_ZEROES	4	
SDRMT_GRPLIST	0	
SDRMT_GRPLIST_ENTRY	4	
SDRMT_GRPLIST_GRPNAME	4	
SDRMT_GRPLIST_HEADER	0	
SDRMT_GRPLIST_ID	0	
SDRMT_GRPLIST_LEN	C	1C
SDRMT_GRPLIST_LENGTH	2	
SDRMT_GRPLIST_MEMNAME	C	
SDRMT_IDCON_ASIDLST	4	10
SDRMT_IDCON_ASIDLST_COPY	4	11
SDRMT_IDCON_DSPLIST	4	1C
SDRMT_IDCON_DSPLIST_COPY	4	1D
SDRMT_IDCON_GRPLIST	4	8
SDRMT_IDCON_JOBLIST	4	18
SDRMT_IDCON_JOBLIST_COPY	4	19
SDRMT_IDCON_KEYLIST	4	24
SDRMT_IDCON_KEYLIST_COPY	4	25
SDRMT_IDCON_LIST64	4	28
SDRMT_IDCON_LIST64_COPY	4	29
SDRMT_IDCON_SDATA	4	C
SDRMT_IDCON_SDATA_COPY	4	D
SDRMT_IDCON_STORAGE	4	14
SDRMT_IDCON_STORAGE_COPY	4	15
SDRMT_IDCON_SUBPLST	4	20
SDRMT_IDCON_SUBPLST_COPY	4	21
SDRMT_IDCON_SYSLIST	4	4
SDRMT_JOBLIST	0	
SDRMT_JOBLIST_ENTRY	4	
SDRMT_JOBLIST_HEADER	0	
SDRMT_JOBLIST_ID	0	
SDRMT_JOBLIST_LEN	4	C
SDRMT_JOBLIST_LENGTH	2	
SDRMT_JOBLIST_NAME	4	
SDRMT_KEYLIST	0	
SDRMT_KEYLIST_ENTRY	4	
SDRMT_KEYLIST_HEADER	0	
SDRMT_KEYLIST_ID	0	
SDRMT_KEYLIST_KEY	4	

Table 755. Cross Reference for IHASDRMT (continued)

Name	Offset	Hex Tag
SDRMT_KEYLIST_LEN	4	8
SDRMT_KEYLIST_LENGTH	2	
SDRMT_LEN	4	4
SDRMT_LENGTH	0	
SDRMT_LIST64	0	
SDRMT_LIST64_BEGIN64@	C	
SDRMT_LIST64_END64@	14	
SDRMT_LIST64_ENTRY	4	
SDRMT_LIST64_HEADER	0	
SDRMT_LIST64_ID	0	
SDRMT_LIST64_LEN	14	1C
SDRMT_LIST64_LENGTH	2	
SDRMT_LIST64_STOKEN	4	
SDRMT_MODEL	0	
SDRMT_MODEL_ENTRY	4	
SDRMT_MODEL_HEADER	0	
SDRMT_MODEL_ID	0	
SDRMT_MODEL_LEN	4	4
SDRMT_MODEL_LENGTH	2	
SDRMT_SDATA	0	
SDRMT_SDATA_ALLNUC	5	2
SDRMT_SDATA_ALLPSA	4	80
SDRMT_SDATA_BYTE0	4	
SDRMT_SDATA_BYTE1	5	
SDRMT_SDATA_BYTE2	6	
SDRMT_SDATA_BYTE3	7	
SDRMT_SDATA_BYTE4	8	
SDRMT_SDATA_BYTE5	9	
SDRMT_SDATA_COUPLE	6	10
SDRMT_SDATA_CSA	5	80
SDRMT_SDATA_DEFS	5	1
SDRMT_SDATA_GRSQ	6	80
SDRMT_SDATA_HCAS	8	20
SDRMT_SDATA_HCNO	8	10
SDRMT_SDATA_HCSY	8	8
SDRMT_SDATA_HEADER	0	
SDRMT_SDATA_ID	0	
SDRMT_SDATA_IO	8	40
SDRMT_SDATA_LEN	A	C

Table 755. Cross Reference for IHASDRMT (continued)

Name	Offset	Hex Tag
SDRMT_SDATA_LENGTH	2	
SDRMT_SDATA_LPA	4	2
SDRMT_SDATA_LSQA	4	8
SDRMT_SDATA_NOALLPSA	5	8
SDRMT_SDATA_NODEFS	8	80
SDRMT_SDATA_NOSQA	5	4
SDRMT_SDATA_NUC	4	20
SDRMT_SDATA_OPTIONS	4	
SDRMT_SDATA_PSA	4	40
SDRMT_SDATA_RGN	4	4
SDRMT_SDATA_RSVD	A	
SDRMT_SDATA_SERVERS	7	20
SDRMT_SDATA_SQA	4	10
SDRMT_SDATA_SUM	5	20
SDRMT_SDATA_SWA	5	40
SDRMT_SDATA_TRT	4	1
SDRMT_SDATA_WLM	6	2
SDRMT_SDATA_XESDATA	6	8
SDRMT_STORAGE	0	
SDRMT_STORAGE_BEGIN@	C	
SDRMT_STORAGE_END@	10	
SDRMT_STORAGE_ENTRY	4	
SDRMT_STORAGE_HEADER	0	
SDRMT_STORAGE_ID	0	
SDRMT_STORAGE_LEN	10	14
SDRMT_STORAGE_LENGTH	2	
SDRMT_STORAGE_STOKEN	4	
SDRMT_SUBPLST	0	
SDRMT_SUBPLST_ASID	4	
SDRMT_SUBPLST_ENTRY	4	
SDRMT_SUBPLST_HEADER	0	
SDRMT_SUBPLST_ID	0	
SDRMT_SUBPLST_LEN	6	8
SDRMT_SUBPLST_LENGTH	2	
SDRMT_SUBPLST_SUBPOOL	6	
SDRMT_SYSLIST	0	
SDRMT_SYSLIST_ASID	12	
SDRMT_SYSLIST_ENTRY	4	
SDRMT_SYSLIST_HEADER	0	

Table 755. Cross Reference for IHASDRMT (continued)

Name	Offset	Hex	Tag
SDRMT_SYSLIST_ID	0		
SDRMT_SYSLIST_JOBNAME	C		
SDRMT_SYSLIST_JOBNAME_ASID	C		
SDRMT_SYSLIST_LEN	12		14
SDRMT_SYSLIST_LENGTH	2		
SDRMT_SYSLIST_SYSNAME	4		
SDRMT_SYSLIST_ZEROES	C		

## IHASDSTR information

### IHASDSTR programming interface information

IHASDSTR is a programming interface.

### IHASDSTR heading information

<b>Common name:</b>	SDUMPX STRLIST Parameter List Mappings
<b>Macro ID:</b>	IHASDSTR
<b>DSECT name:</b>	SDSTR_HEADER_MAP - STRLIST Header Mapping SDSTR_LENGTH_MAP - STRLIST Length Mapping SDSTR_WORK_AREAS - IHABLDP Work Area Mapping SDSTR_STRUCTURE - STRLIST Structure Entry Mapping SDSTR_RANGE - STRLIST Range/Option Entry Mapping
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: User Defined Key: User Defined Residency: User Defined
<b>Size:</b>	Variable
<b>Created by:</b>	User
<b>Pointed to by:</b>	User
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the STRLIST parameter list entries that will be constructed by the IHABLDP macro and will be provided as input to the STRLIST parameter on the SDUMPX macro.

### IHASDSTR mapping

Table 756. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	SDSTR_HEADER_MAP	"0" STRLIST Header for IHABLDP

Table 756. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'0'	0	SDSTR_WORK_VAR_PTR	"0" Pointer to IHABLDP work areas
0	(0)	X'4'	0	SDSTR_VERSION	"4" Version Number
0	(0)	X'8'	0	SDSTR_HEADER_LENGTH	"8" Length of STRLIST header
STRLIST Length mapping - 8 bytes					
0	(0)	X'0'	0	SDSTR_LENGTH_MAP	"0" STRLIST Header for storing the length
0	(0)	X'0'	0	SDSTR_LENGTH	"0" Total length of the STRLIST parameter list
IHABLDP work areas - 16 bytes					
0	(0)	X'0'	0	SDSTR_WORK_AREA	"0" IHABLDP Work areas
0	(0)	X'0'	0	SDSTR_NEXT_SPACE	"0" Next available space pointer
0	(0)	X'4'	0	SDSTR_CUR_STR_PTR	"4" Current structure entry pointer
0	(0)	X'10'	0	SDSTR_WORK_LENGTH	"16" Length of IHABLDP work areas
STRLIST structure entry - 48 bytes					
0	(0)	X'0'	0	SDSTR_STRUCTURE	"0" STRLIST structure entry
0	(0)	X'0'	0	SDSTR_STRUCTURE_NAME	"0" Structure name
0	(0)	X'10'	0	SDSTR_CONTOKEN	"16" Provide a CONTOKEN to include user registry information that relates to that user. This should only be used for a cache structure
0	(0)	X'10'	0	SDSTR_CONNAME	"16" Provide a CONNAME to include user registry information that relates to that user. This should only be used for a cache structure EQU 32 Reserved for IBM use EQU 36 Reserved for IBM use EQU 38 Reserved for IBM use EQU 40 Reserved for IBM use EQU 42 Reserved for IBM use EQU 43 Reserved
0	(0)	X'2C'	0	SDSTR_RANGE_CNTR	"44" Counter of how many range and option entries follow this structure entry
0	(0)	X'2E'	0	SDSTR_STRUCTURE_FLAGS	"46" Structure level flag byte
	1... ..			SDSTR_ACCTIME_NOLIMIT	"X'80'" Indicates that the time limit specified on the IXLCONN macro will be ignored to insure that the entry data is dumped serialized EQU X'40' Reserved for IBM use EQU X'20' Reserved for IBM use
	...1 ....			SDSTR_CONNAME_ENTRY	"X'10'" Indicates that the value in the CONTOKEN/CONNAME field is a CONNAME EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved EQU 33 Reserved
0	(0)	X'30'	0	SDSTR_STRUCTURE_LENGTH	"48" Length of STRLIST structure entry
STRLIST range and option entry - 12 bytes					
0	(0)	X'0'	0	SDSTR_RANGE	"0" STRLIST structure range and option entry
0	(0)	X'0'	0	SDSTR_RANGE_FLAG1	"0" Range level flag byte 1
	1... ..			SDSTR_ADJUNCT_CAPTURE	"X'80'" Indicates that the adjunct data will be captured with control data

Table 756. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		SDSTR_SUMMARY	"X'40'" Indicates summary of the range be dumped. Control elements will be excluded from the dump EQU X'20' Reserved EQU X'10' Reserved EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved
0	(0) X'1'		0	SDSTR_RANGE_FLAG2	"1" Range level flag byte 2
		1... ....		SDSTR_EDATA_SERIALIZE	"X'80'" Indicates that entry data for each element in the range should be included in the dump and be dumped serialized
		.1.. ....		SDSTR_EDATA_UNSERIALIZE	"X'40'" Indicates that entry data for each element in the range should be included in the dump and be dumped unserialized
		..1. ....		SDSTR_ADJUNCT_DIRECTIO	"X'20'" Indicates that the adjunct data should be retrieved with the entry data which is not captured EQU X'10' Reserved EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved
0	(0) X'2'		0	SDSTR_RANGE_FLAG3	"2" Range level flag byte 3
		1... ....		SDSTR_OBJECT_COCLASS	"X'80'" Indicates that the range represents a range of cast-out classes
		.1.. ....		SDSTR_OBJECT_STGCLASS	"X'40'" Indicates that the range represents a range of storage classes
		..1. ....		SDSTR_OBJECT_LISTNUM	"X'20'" Indicates that the range represents a range of list numbers
		...1 ....		SDSTR_DUMP_ALL	"X'10'" Indicates that all elements of a requested object will be dumped. If bit on, the fields SDSTR_START_VALUE and SDSTR_END_VALUE will be ignored
		.... 1...		SDSTR_LOCKENTRIES	"X'08'" Indicates that lock table entries should be included in the dump. This is only valid for list structures.
		.... .1..		SDSTR_USERCNTLS	"X'04'" Indicates that the user attached controls should be included in the dump
		.... ..1.		SDSTR_EVENTQS	"X'02'" Indicates that the user event queues should be included in the dump
		.... ...1		SDSTR_OBJECT_EMCONTROLS	"X'01'" Indicates that the range represents a range of event monitoring controls EQU 3 Reserved
0	(0) X'4'		0	SDSTR_START_VALUE	"4" Starting value for range
0	(0) X'8'		0	SDSTR_END_VALUE	"8" Ending value for range
0	(0) X'C'		0	SDSTR_RANGE_LENGTH	"12" Length of STRLIST structure range and option entry
Constants					
0	(0) X'1'		0	INIT_VERSION	"1" Initial Version number
Return codes for IHABLDP					
0	(0) X'0'		0	SUCCESS	"0" Successful completion
0	(0) X'8'		0	FAIL	"8" IHABLDP failed
Reason codes for IHABLDP					

Table 756. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'0'	0	NO_REASON	"0" No reason code
0	(0)	X'4'	0	INSUFFICIENT_SPACE	"4" Insufficient space in the dump parameter list to add the requested entry
0	(0)	X'8'	0	INVALID_RANGE	"8" Range entry was not added to the dump parameter list because the starting range value was greater than the ending range value.

Table 757. Cross Reference for IHASDSTR

Name	Offset	Hex Tag
FAIL	0	8
INIT_VERSION	0	1
INSUFFICIENT_SPACE	0	4
INVALID_RANGE	0	8
NO_REASON	0	0
SDSTR_ACCTIME_NOLIMIT	0	80
SDSTR_ADJUNCT_CAPTURE	0	80
SDSTR_ADJUNCT_DIRECTIO	0	20
SDSTR_CONNAME	0	10
SDSTR_CONNAME_ENTRY	0	10
SDSTR_CONTOKEN	0	10
SDSTR_CUR_STR_PTR	0	4
SDSTR_DUMP_ALL	0	10
SDSTR_EDATA_SERIALIZE	0	80
SDSTR_EDATA_UNSERIALIZE	0	40
SDSTR_END_VALUE	0	8
SDSTR_EVENTQS	0	2
SDSTR_HEADER_LENGTH	0	8
SDSTR_HEADER_MAP	0	0
SDSTR_LENGTH	0	0
SDSTR_LENGTH_MAP	0	0
SDSTR_LOCKENTRIES	0	8
SDSTR_NEXT_SPACE	0	0
SDSTR_OBJECT_COCLASS	0	80
SDSTR_OBJECT_EMCONTROLS	0	1
SDSTR_OBJECT_LISTNUM	0	20
SDSTR_OBJECT_STGCLASS	0	40
SDSTR_RANGE	0	0
SDSTR_RANGE_CNTR	0	2C
SDSTR_RANGE_FLAG1	0	0
SDSTR_RANGE_FLAG2	0	1

Table 757. Cross Reference for IHASDSTR (continued)

Name	Offset	Hex Tag
SDSTR_RANGE_FLAG3	0	2
SDSTR_RANGE_LENGTH	0	C
SDSTR_START_VALUE	0	4
SDSTR_STRUCTURE	0	0
SDSTR_STRUCTURE_FLAGS	0	2E
SDSTR_STRUCTURE_LENGTH	0	30
SDSTR_STRUCTURE_NAME	0	0
SDSTR_SUMMARY	0	40
SDSTR_USERCNTLS	0	4
SDSTR_VERSION	0	4
SDSTR_WORK_AREA	0	0
SDSTR_WORK_LENGTH	0	10
SDSTR_WORK_VAR_PTR	0	0
SUCCESS	0	0

## IHASLMSG information

### IHASLMSG heading information

<b>Common name:</b>	WTO slip interface mapping
<b>Macro ID:</b>	IHASLMSG
<b>DSECT name:</b>	VTMSG
<b>Owning component:</b>	SLIP (SCSLP)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Virtual Storage: Yes Subpool: N/A (See Residency) Key: 0 Residency: Private or common area storage
<b>Size:</b>	See compiled listing
<b>Created by:</b>	IEAVBWTO or IEAVMWTO
<b>Pointed to by:</b>	On entry to the SLIP action processor: GPR 2 will point to SLMsg and GPR 3 will point to SLMsgText for a single or major line. GPR 4 will point to SLMsg and GPR 5 will point to SLMsgText for a minor line.
<b>Serialization:</b>	None
<b>Function:</b>	Represents a parameter to SLIP



## IHASLMSG mapping

Table 758. Structure SLMSG

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	SLMSG	
0	(0)	CHARACTER	8	SLMSGRELATEDFIELDS	
0	(0)	UNSIGNED	2	SLMSGTEXTLENGTH	Length of the text
2	(2)	BITSTRING	2	SLMSGFLAGS	Related flags
4	(4)	SIGNED	4	*	Unused
8	(8)	CHARACTER	*	SLMSGTEXT	Message text

## IHASRX information

### IHASRX heading information

**Common name:** Suspended SRB Extension

**Macro ID:** IHASRX

**DSECT name:** SSRX

**Owning component:** Supervisor Control (SC1C5)

**Eye-catcher ID:** SSRX  
Offset: 0  
Length: 4

**Storage attributes:** Key: 0  
Residency: Above 2G, fixed common

**Size:** SSRX -- X'0780' bytes

**Created by:** IEAVESPM

**Pointed to by:** SsrSsrAddr

**Serialization:** Owner-serialized.

**Function:** In conjunction with an XSB and an SSRB, the SSRX is used to save status for any type SRB.  
The data formerly in the SSRB is divided into two pieces:  
- The SSRB resides below 2G.  
- The SSRX resides above 2G.

### IHASRX mapping

Table 759. Structure SSRX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1920	SSRX	
0	(0)	CHARACTER	4	SSRXSSRX	Acronym in EBCDIC.
4	(4)	ADDRESS	4	SSRXSSRBADDR	Address of the associated SSRB.
8	(8)	CHARACTER	32	SSRXFPRS	FLOATING POINT REG SAVE AREA
8	(8)	CHARACTER	8	SSRXFPR0	FLOATING POINT REG 0
16	(10)	CHARACTER	8	SSRXFPR2	FLOATING POINT REG 2
24	(18)	CHARACTER	8	SSRXFPR4	FLOATING POINT REG 4

Table 759. Structure SSRX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
32	(20)	CHARACTER	8	SSRXFPR6	FLOATING POINT REG 6
40	(28)	ADDRESS	4	SSRXTRAN	PAGE FAULT ADDR(FLIH)
44	(2C)	BITSTRING	2	SSRXSAFN	SAVED AFFINITY
46	(2E)	CHARACTER	2	SSRXR02E	RESERVED.
48	(30)	ADDRESS	4	SSRXORMT	OLD SRB RMTR VALUE
	1... ....			SSRXSSTD	SRB SUSPEND WITH TOKEN and Pause DISABLE summary BIT
	.1.. ....			SSRXSSTA	SRB SUSPEND WITH TOKEN and Pause DISABLED BECAUSE SRB WAS ABENDED DURING PURGEDQ PROCESSING.
	..1. ....			SSRXSSTE	SRB SUSPEND WITH TOKEN and Pause DISABLED BECAUSE THIS SRB IS A SUSPEND EXIT.
52	(34)	ADDRESS	4	SSRXLSA1	SAVEAREA FOR LCCACLSA.
56	(38)	ADDRESS	4	SSRXLSDP	VIRTUAL ADDRESS OF THE CURRENT LSED. IF SSRXLSDP IS 0 1. THE SRB DID NOT USE THE LINKAGE STACK, . . . . . 2. SSRXLSA1 IS UNPREDICTABLE, AND . . . . 3. THE SSRX WILL BE DISPATCHED WITH AN EMPTY LINKAGE STACK.
60	(3C)	ADDRESS	4	SSRXALOV	DISPATCHABLE UNIT ACCESS LIST VIRTUAL ADDRESS.
64	(40)	CHARACTER	64	SSRXARS	ACCESS REGISTER SAVEAREA.
128	(80)	CHARACTER	64	SSRXDUCT	DUCT SAVEAREA.
192	(C0)	CHARACTER	72	SSRXAREATOCLEAR	Area which must be cleared before the SSRX is reused.
192	(C0)	ADDRESS	4	SSRXLAA	Address of LE area
196	(C4)	CHARACTER	1	SSRXR0C4	Reserved.
197	(C5)	BITSTRING	1	SSRXESSFL	Extended saving flags
197	(C5)	BITSTRING	1	SSRXFPFL	FP Flags
	1... ....			SSRXBFP	Extended FP saving
	.1.. ....			*	unused
	..1. ....			SSRXVSS	VRs are being saved
	..1. ....			SSRXZ1	
198	(C6)	CHARACTER	2	SSRXOPASID	Original Purge ASID. Similar to SSRXORMT.
200	(C8)	ADDRESS	4	SSRXOPTCB	Original Purge TCB. Similar to SSRXORMT.
204	(CC)	ADDRESS	4	SSRXSUPFRR	Address of the Supervisor FRR Wrapper routine that is set for SYNCH(YES) SSRBs.
208	(D0)	CHARACTER	4	SSRXR0D0	Reserved.
212	(D4)	CHARACTER	28	SSRXSUSPINFO	This area is used to save information about the suspended workunit.
212	(D4)	UNSIGNED	1	SSRXSUSPWUTYPE	Type (same as WEBTYPE) of workunit suspended waiting for this SRB to complete.
213	(D5)	CHARACTER	3	SSRXR0D5	Reserved.
216	(D8)	CHARACTER	16	SSRXSUSPTOKEN	TTOKEN of the TCB to resume when this SRB completes. ONLY valid when SSRXSuspWuType represents a "TCB".
216	(D8)	CHARACTER	8	SSRXSUSPSTOKEN	STOKEN portion of TTOKEN of the TCB to resume when this SRB completes. Valid for all SSRXSuspWuType types.

Table 759. Structure SSRX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
224	(E0)	CHARACTER	8	SSRXSUSPSPTOKEN	SPTOKEN of the SRB to resume when this SRB completes. ONLY valid when SSRXSuspWuType represents an "SSRB".
224	(E0)	CHARACTER	4	*	First part of SpTOKEN
228	(E4)	ADDRESS	4	SSRXSUSPTTOKENTCB@	TCB address
232	(E8)	ADDRESS	4	SSRXSUSPRBADDR	Address of the RB that was suspended when the SYNCH(YES) caller was suspended. ONLY valid when SSRXSuspWuType represents a "TCB".
236	(EC)	CHARACTER	4	SSRXSUSPRBRESUMETOKEN	RB Token for which to resume the suspended task. ONLY valid when SSRXSuspWuType represents a "TCB".
240	(F0)	CHARACTER	24	SSRXSYNCHINFO	This area is used to save the completion information about this SRB for the workunit that is to be resumed. This area is used for the backend processing of IEAMSCHD SYNCH(YES) processing by IEAVSCHD to indicate to its caller the completion info of this SRB.
240	(F0)	SIGNED	4	SSRXSYNCHCOMP	Indicates the completion type for this SRB.
244	(F4)	ADDRESS	4	SSRXSYNCHCOMPADDR	Address of the storage to update with the completion type.
248	(F8)	SIGNED	4	SSRXSYNCHCODE	Indicates the code associated with the completion type for this SRB.
252	(FC)	ADDRESS	4	SSRXSYNCHCODEADDR	Address of the storage to update with the associated code.
256	(100)	SIGNED	4	SSRXSYNCHRSN	Indicates the reason associated with the completion type for this SRB.
260	(104)	ADDRESS	4	SSRXSYNCHRSNADDR	Address of the storage to update with the associated reason.
264	(108)	CHARACTER	8	SSRXSUSPT6RBOPSW	RBOPSW from T6 SVC so that we can resume in IEAVSCHD and then later get back to the T6 SVC issuer.
272	(110)	BITSTRING	4	SSRXSUSPT6FLAGS	Flags serialized by CS. We need to know when it's safe to free the SSRB. The "last guy out wins" is the rule, from among IEAVSYNR and IEAVSCHD. Each sets his bit, and in doing so checks the other guy's bit. If both bits are on when your bit gets set, it's your responsibility to clean up.
272	(110)	BITSTRING	2	SSRXSUSPT6FLAGSBYTES0_1	
		1... ....		*	Do not use this bit. It causes a compiler problem if either of the next two bits is bit 0 in this word.
		.1.. ....		SSRXSUSPT6IEAVSCHDRAN	
		..1. ....		SSRXSUSPT6IEAVSYNRRAN	
		...1 ....		SSRXSUSPT6INEFFECT	
274	(112)	SIGNED	2	SSRXSUSPT6HOMEASID	Home ASID
276	(114)	ADDRESS	4	SSRXSUSPT6TASKWEB@	Address of suspended task's WEB
280	(118)	CHARACTER	16	SSRXSUSPT6XSBOPSW16	XSBOPSW16 from T6 SVC so that we can resume in IEAVSCHD and then later get back to the T6 SVC issuer.
296	(128)	CHARACTER	100	SSRXAFPR	FPRs 1,3,5,7-15,FPCR
296	(128)	CHARACTER	96	*	FPRs 1,3,5,7-15
392	(188)	CHARACTER	4	SSRXFPCR	FPCR
396	(18C)	ADDRESS	4	SSRXESSA	

Table 759. Structure SSRX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
396	(18C)	CHARACTER	4	SSRXZ2	
400	(190)	CHARACTER	64	SSRXG64H	High Halves of GPRs
464	(1D0)	CHARACTER	8	SSRXTRNE	ESAME page fault address
472	(1D8)	CHARACTER	8	SSRXBEA	Breaking Event Address
480	(1E0)	CHARACTER	8	SSRX_HIS_AREA	Data used by HIS
480	(1E0)	ADDRESS	4	SSRX_HIS_WEB@	Address of the WEB which corresponds to the SSRB.
484	(1E4)	UNSIGNED	2	SSRX_HIS_HOMEASID	Home ASID where the SRB was scheduled to run
		1... ....		SSRX_HIS_IS_SRB	This bit is on when the HIS data is for an SRB
486	(1E6)	UNSIGNED	2	SSRX_HIS_PARTIAL_WEB@	Bytes 2 and 3 of SSRX_HIS_WEB@.
488	(1E8)	BITSTRING	8	SSRXSRBIDSEQ#	This sequence number, which comes from SvtSrbIdSeq#, is compared along with SRBWEB to an SrvIdToken in order to fully identify a preemptable SRB
496	(1F0)	BITSTRING	4	SSRXFLAGSCC	When WebSrbTerm is on, this field contains the flags and completion code from a CALLRTM TYPE=SRBTERM
500	(1F4)	BITSTRING	4	SSRXSRBTERMREASON	When WebSrbTerm is on, this field contains the reason code from a CALLRTM TYPE=SRBTERM. Note that the reason code is only valid when the x'04' bit is on in the first byte of SSRXFlagsCC
504	(1F8)	CHARACTER	4	SSRXR1F8	Reserved.
508	(1FC)	UNSIGNED	4	SSRX_SRBPARM	Original SRBPARM Value
512	(200)	CHARACTER	1408	SSRXFRRS	FRR STACK SAVEAREA.
1920	(780)	CHARACTER	0	*	End of mapping

Table 760. Constants for IHASSRX

Len	Type	Value	Name	Description
4	DECIMAL	1920	SSRXLEN	
4	CHARACTER	SSRX	SSRXIDCHARS	

Table 761. Cross Reference for IHASSRX

Name	Offset	Hex Tag
SSRX	0	
SSRX_HIS_AREA	1E0	
SSRX_HIS_HOMEASID	1E4	
SSRX_HIS_IS_SRB	1E4	80
SSRX_HIS_PARTIAL_WEB@	1E6	
SSRX_HIS_WEB@	1E0	
SSRX_SRBPARM	1FC	
SSRXAFPR	128	
SSRXALOV	3C	
SSRXAREATOCLEAR	C0	
SSRXARS	40	
SSRXBEA	1D8	

Table 761. Cross Reference for IHASSRX (continued)

Name	Offset	Hex Tag
SSRXBFP	C5	80
SSRXDUCT	80	
SSRXESSA	18C	
SSRXESSFL	C5	
SSRXFLAGSCC	1F0	
SSRXFPCR	188	
SSRXFPFL	C5	
SSRXFPRS	8	
SSRXFPR0	8	
SSRXFPR2	10	
SSRXFPR4	18	
SSRXFPR6	20	
SSRXFRRS	200	
SSRXG64H	190	
SSRXLAA	C0	
SSRXLSA1	34	
SSRXLSDP	38	
SSRXOPASID	C6	
SSRXOPTCB	C8	
SSRXORMT	30	
SSRXR0C4	C4	
SSRXR0D0	D0	
SSRXR0D5	D5	
SSRXR02E	2E	
SSRXR1F8	1F8	
SSRXSAFN	2C	
SSRXSRBIDSEQ#	1E8	
SSRXSRBTERMREASON	1F4	
SSRXSSRBADDR	4	
SSRXSSRX	0	
SSRXSSTA	30	40
SSRXSSTD	30	80
SSRXSSTE	30	20
SSRXSUPFRR	CC	
SSRXSUSPINFO	D4	
SSRXSUSPRBADDR	E8	
SSRXSUSPRBRESUMETOKEN	EC	
SSRXSUSPSPTOKEN	E0	
SSRXSUSPSTOKEN	D8	

Table 761. Cross Reference for IHASSRX (continued)

Name	Offset	Hex Tag
SSRXSUSPTTOKEN	D8	
SSRXSUSPTTOKENTCB@	E4	
SSRXSUSPT6FLAGS	110	
SSRXSUSPT6FLAGSBYTES0_1	110	
SSRXSUSPT6HOMEASID	112	
SSRXSUSPT6IEAVSCHDRAN	110	40
SSRXSUSPT6IEAVSYNRRAN	110	20
SSRXSUSPT6INEFFECT	110	10
SSRXSUSPT6RBOPSW	108	
SSRXSUSPT6TASKWEB@	114	
SSRXSUSPT6XSBOPSW16	118	
SSRXSUSPWUTYPE	D4	
SSRXSYNCHCODE	F8	
SSRXSYNCHCODEADDR	FC	
SSRXSYNCHCOMP	F0	
SSRXSYNCHCOMPADDR	F4	
SSRXSYNCHINFO	F0	
SSRXSYNCHRSN	100	
SSRXSYNCHRSNADDR	104	
SSRXTRAN	28	
SSRXTRNE	1D0	
SSRXVSS	C5	20
SSRXZ1	C5	20
SSRXZ2	18C	

## IHASVTX information

### IHASVTX programming interface information

**ONLY** the following fields are part of the programming interface information:

- SvtxRealSpaceALET
- SvtxRealSpaceEAX

### IHASVTX heading information

<b>Common name:</b>	Extended SVT
<b>Macro ID:</b>	IHASVTX
<b>DSECT name:</b>	SVTX
<b>Owning component:</b>	Supervisor Control (SC1C5)

**Eye-catcher ID:** SVTX  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: Extended Nucleus  
Key: 0  
Residency: Above 16M line

**Size:** Offset of SVTXEND minus offset of SVTX

**Created by:** IEAVSVTX

**Pointed to by:** PSASVTX  
ECVTSVTX

**Serialization:** See individual field descriptions.

**Function:** Contains service routine addresses and control blocks used by Supervisor Control. Resides above 16M.

## IHAVSVTX mapping

Table 762. Structure SVTX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SVTX	
0	(0)	BITSTRING	4	SVTXSVTX	Acronym in EBCDIC- "SVTX".
4	(4)	ADDRESS	4	SVTXWUQP	Address of IEAVWUQP SERIALIZATION: None
8	(8)	ADDRESS	4	SVTXWEEL	Address of the last element on the WEB Extent Element Pool. SERIALIZATION: Disablement during NIP and Global Recovery Protocol thereafter.
12	(C)	ADDRESS	4	SVTXWPM	Address of Web Pool Manager. SERIALIZATION: None.
16	(10)	ADDRESS	4	SVTXWBCH	Address of Web Chap Service Routine. SERIALIZATION: None.
20	(14)	ADDRESS	4	SVTXWUQ1	Address of WUQADD Service Routine entry point IEAVWUQ1. SERIALIZATION: None.
24	(18)	ADDRESS	4	SVTXWUQ2	Address of WUQADD Service Routine entry point IEAVWUQ2. SERIALIZATION: None.
28	(1C)	ADDRESS	4	SVTXWUQ3	Address of WUQADD Service Routine entry point IEAVWUQ3. SERIALIZATION: None.
32	(20)	ADDRESS	4	SVTXWUQ4	Address of WUQADD Service Routine entry point IEAVWUQ4. SERIALIZATION: None.
36	(24)	ADDRESS	4	SVTXWUQD	Address of WUQDEL Service Routine. SERIALIZATION: None.
40	(28)	ADDRESS	4	SVTXESPN	Address of SPINLOOP Service Routine. SERIALIZATION: None.
44	(2C)	ADDRESS	4	SVTXWEBS	Address of WEBSWTC Service Routine. SERIALIZATION: None.
48	(30)	DBL WORD	8	SVTXFWP(0)	Free WEB pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Supervisor Control

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
48	(30)	ADDRESS	4	SVTXFWPP	Address of first available WEB in the free pool. SERIALIZATION: CDS on SVTXFWPP for free pool adds, CS on SVTXFWPP for free pool deletes. OWNERSHIP: Supervisor Control
52	(34)	ADDRESS	4	SVTXFWPC	Synchronous count field for CDS of SVTXFWP. WUQ Global Rec. SERIALIZATION: CDS on SVTXFWP for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Supervisor Control
56	(38)	ADDRESS	4	SVXTESQ	Address of IEAVTESQ SERIALIZATION: none OWNERSHIP: RTM
60	(3C)	SIGNED	2	SVTXMPOSTNOLLOCKTRIGGER	The number of suspended SRBs in the target space before XMPOST to that space gets scheduled without the local lock so that it can look for ECB already posted
62	(3E)	SIGNED	2	SVTXWIAD	WLM Interrupted ID. SERIALIZATION: None OWNERSHIP: Supervisor Control
64	(40)	BITSTRING	8	SVTXEGR_TIMESTAMP	Timestamp of the last time IEAVEGR ran. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
72	(48)	ADDRESS	4	SVTxCWTM	Address of IEAVCWTM SERIALIZATION: None. OWNERSHIP: Supervisor Control
76	(4C)	ADDRESS	4	SVTXTR2P	Address of IEAVTR2P SERIALIZATION: None. OWNERSHIP: RTM
80	(50)	DBL WORD	8	SVTXFCP(0)	Free CNTX pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Context Services
80	(50)	ADDRESS	4	SVTXFCPP	Address of first available CNTX in the free pool. SERIALIZATION: CDS on SVTXFCP for free pool adds, CS on SVTXFCPP for free pool deletes. OWNERSHIP: Context Services
84	(54)	ADDRESS	4	SVTXFCPC	Synchronous count field for CDS of SVTXFCP. SERIALIZATION: CDS on SVTXFCP for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Context Services
88	(58)	DBL WORD	8	SVTXFCIP(0)	Free CIE pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Context Services
88	(58)	ADDRESS	4	SVTXFCIPP	Address of first available CIE in the free pool. SERIALIZATION: CDS on SVTXFCIP for free pool adds, CS on SVTXFCIPP for free pool deletes. OWNERSHIP: Context Services
92	(5C)	ADDRESS	4	SVTXFCIPC	Synchronous count field for CDS of SVTXFCIP. SERIALIZATION: CDS on SVTXFCIP for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Context Services
96	(60)	ADDRESS	4	SVTXCEEQ	Address of first extent of CNTXes SERIALIZATION: CS OWNERSHIP: Context Services
100	(64)	ADDRESS	4	SVTXDPSN	Next DU-AL Pool sequence number SERIALIZATION: CS OWNERSHIP: Supervisor Control
104	(68)	SIGNED	4	SVTXCADALET	System Common Area Data space ALET. SERIALIZATION: None, initialized during NIP.



Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
108	(6C)	ADDRESS	4	SVTXCADFSPTR	System Common Area Data space free space pointer. SERIALIZATION: CS
112	(70)	SIGNED	4	SVTXSRBSDATD	Size of IEAVSRBS dynamic area CPOOL cell. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
116	(74)	SIGNED	4	SVTXSRBSCPID	CPOOL ID of IEAVSRBS dynamic area CPOOL. SERIALIZATION: None, initialized during NIP. OWNERSHIP: Supervisor Control
120	(78)	CHARACTER	1	(0)	Fields used to maintain the pool of mini linkage stack sections, including an LSSD. OWNERSHIP: Supervisor Control
120	(78)	DBL WORD	8	SVTXMLSPPOOL(0)	Doubleword for SvtxMLSynch and SvtxMLSptr. SERIALIZATION: CDS
120	(78)	SIGNED	4	SVTXMLSSYNCH	Synchronization counter used in conjunction with SvtxMLSptr.
124	(7C)	ADDRESS	4	SVTXMLSPTR	Pointer to the next LSSD/LSS in the pool of mini linkage stack sections.
128	(80)	SIGNED	4	SVTXMLSCOUNT	Number of mini linkage stack sections available in the pool. Used for pool compression only. SERIALIZATION: CS
132	(84)	SIGNED	2	SVTXMLSMAX	Number of mini linkage stack sections in the pool which triggers pool contraction. SERIALIZATION: None, constant.
134	(86)	SIGNED	2	SVTXMLSMIN	Number of mini linkage stack sections which remain in the pool after pool contraction. SERIALIZATION: None, constant.
136	(88)	CHARACTER	1	(0)	Fields used to maintain the pool of full size linkage stack sections, including an LSSD. OWNERSHIP: Supervisor Control
136	(88)	DBL WORD	8	SVTXFLSPPOOL(0)	Doubleword for SvtxFLSynch and SvtxFLSptr. SERIALIZATION: CDS
136	(88)	SIGNED	4	SVTXFLSSYNCH	Synchronization counter used in conjunction with SvtxFLSptr.
140	(8C)	ADDRESS	4	SVTXFLSPTR	Pointer to the next LSS in the pool of full linkage stack sections.
144	(90)	SIGNED	4	SVTXFLSCOUNT	Number of full linkage stack sections available in the pool. Used for pool compression only. SERIALIZATION: CS
148	(94)	SIGNED	2	SVTXFLSMAX	Number of full linkage stack sections in the pool which triggers pool contraction. SERIALIZATION: None, constant.
150	(96)	SIGNED	2	SVTXFLSMIN	Number of full linkage stack sections which remain in the pool after pool contraction. SERIALIZATION: None, constant.
152	(98)	CHARACTER	1	(0)	Fields used to maintain the pool of SSRBs and XSBs used for SUSPEND with token. OWNERSHIP: Supervisor Control
152	(98)	DBL WORD	8	SVTXTOKENPOOL_MOVED(0)	moved SVTXTOKENPOOL
152	(98)	ADDRESS	4	SVTX_IMCB_ADDR	Address of IMCB
156	(9C)	ADDRESS	4	SVTX_RIMF@	Address of RTM RIMF area
160	(A0)	SIGNED	4	SVTXSRBPMPOOLID	CPOOL ID for Pause Multiple Element workareas for SRBs Ownership: Supervisor control

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
164	(A4)	SIGNED	4	SVTXPMEADDRESSTABLE@	Pointer to the table used to track the SRB CPOOL PMEs
168	(A8)	ADDRESS	4	SVTXSPMA	Address of IEAVSPMA. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
172	(AC)	SIGNED	4	SVTEXSSX	Address of IEAVESSX
176	(B0)	CHARACTER	8	SVTXCADSTOKEN	System Common Area Data space STOKEN. SERIALIZATION: None, initialized during NIP.
184	(B8)	SIGNED	4	SVTXSDEID	CPOOL ID for small Context data elements
188	(BC)	SIGNED	4	SVTXMDEID	CPOOL ID for medium Context data elements
192	(C0)	BITSTRING	16	SVTXR0C0(0)	reserved
192	(C0)	DBL WORD	8	SVTXSSRBPOOL_MOVED	moved SVTXSSRBPOOL
200	(C8)	SIGNED	4	SVTXSSRBCOUNT_MOVED	moved SVTXSSRBCOUNT
204	(CC)	SIGNED	2	SVTXSSRBMAX_MOVED	moved SVTXSSRBMAX
206	(CE)	SIGNED	2	SVTXSSRBMIN_MOVED	moved SVTXSSRBMIN
208	(D0)	SIGNED	4	SVTXREALSPACEALET	ALET for accessing real space. The EAX must be set to the value in SvtxRealSpaceEAX in order to use this ALET.
212	(D4)	SIGNED	2	SVTXREALSPACEEAX	EAX for accessing real space. Use the ESEA instruction to set the EAX while saving the current one. You must make sure that unauthorized code does not get control with this EAX value. You must restore the saved EAX in all circumstances after you are done using the real space. This includes recovery cases.
214	(D6)	BITSTRING	1	SVTXFLAGS	Flags
		1... ....		SVTX_CRYPTCTRS_NEVER	"X'80'"
		.1.. ....		SVTX_CRYPTCTRS_ACTIVE	"X'40'"
		..1. ....		SVTX_NNPICTRS_NEVER	"X'20'"
		...1 ....		SVTX_NNPICTRS_ACTIVE	"X'10'"
		.... 1...		SVTX_CTRS_DID_EARLYAS	"X'08'"
		.... .1..		SVTX_AICB_INUSE	"X'04'" This bit will be on if any of the counter sets covered by the AICB are not in the "never" state
215	(D7)	BITSTRING	1	SVTXR0D7	Reserved
216	(D8)	ADDRESS	4	SVTXCIEEQ	Address of first extent of CIEs SERIALIZATION: CS OWNERSHIP: Context Services
220	(DC)	SIGNED	4	SVTX_ISN012E_DOMID	DomID for ISN012E
224	(E0)	DBL WORD	8	SVTXLXSTAT(0)	LX Usage Statistics
224	(E0)	SIGNED	2	SVTXLXSYSDEFINED	Count of system LXs that were defined for allocation (this does not include LXs allocated for SFT usage)
226	(E2)	SIGNED	2	SVTXLXSYSINUSE	Count of system LXs currently in use
228	(E4)	SIGNED	2	SVTXLXSYSDEFINED	Count of non-system LXs that may be defined
230	(E6)	SIGNED	2	SVTXLXNSYSINUSE	Count of non-system LXs that are in use

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
232	(E8)	CHARACTER	12	SVTXSPDE3(0)	When nonzero, Global Recovery is in progress. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
232	(E8)	BITSTRING	8		Was SVTXSPDE3_SEEN
240	(F0)	BITSTRING	4	SVTXSPDE3_CPU	CPU with Global Recovery in Progress SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
244	(F4)	ADDRESS	4	SVTXSPDE3_SEEN_ADDR	Address to bitmask of CPUs that have seen SVTXSPDE3 was set. Each bit indicates whether the corresponding CPU was seen that SVTXSPDE3 was set. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
248	(F8)	DBL WORD	8	SVTXBLXSTAT(0)	Big LX Usage Statistics
248	(F8)	SIGNED	4	SVTXBLXSYSDEFINED	Count of system Big LXs that were defined for allocation (this does not include Big LXs allocated for SFT usage)
252	(FC)	SIGNED	4	SVTXBLXSYSINUSE	Count of system Big LXs currently in use
256	(100)	SIGNED	4	SVTXBLXNSYSDEFINED	Count of non-system Big LXs that may be defined
260	(104)	SIGNED	4	SVTXBLXNSYSINUSE	Count of non-system Big LXs that are in use
264	(108)	BITSTRING	4	SVTXNSBLX	Number system "Big LXs"
268	(10C)	ADDRESS	4	SVTXSRBPROMOTIONTABLEADDR	Address of table used to record SRB promotion being initiated
272	(110)	BITSTRING	8	SVTX_SPIN_TRACE_START_TRIGGER	Time duration. After spinning this long, cut the spin-start trace record
280	(118)	BITSTRING	8	SVTXEGR_TIMESTAMP_RECONFIG	Copy of SVTXEGR_TIMESTAMP before IEEVCPRA zeroed LCCAT00P SERIALIZATION: ENQ on SYSZVARY.CPU. OWNERSHIP: Supervisor Control
288	(120)	DBL WORD	8	SVTX_FREEWUQH_AREA(0)	Free WWUQ pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Supervisor Control
288	(120)	ADDRESS	4	SVTX_FREEWUQH_PTR	Address of first available WUQ in the free pool. SERIALIZATION: CDS on SVTX_FreeWUQH_Area for free pool adds, CS on SVTX_FreeWUQHPtr for free pool deletes. OWNERSHIP: Supervisor Control
292	(124)	BITSTRING	4	SVTX_FREEWUQH_COUNT	Synchronous count field for CDS of SVTX_FreeWUQHPtr. WUQ Global Recovery. SERIALIZATION: CDS on SVTX_FreeWUQH_Area for free pool deletes, not updated for free pool adds. OWNERSHIP: Supervisor Control
296	(128)	ADDRESS	4	SVTX_WUQH_WEE_TRAILER	Last WEE in WUQH WEE pool. Used for verifying the queue in global recovery.
300	(12C)	SIGNED	4	SVTXEDSRRETRYCOUNT	Serialized by CS.
304	(130)	BITSTRING	32	SVTXDIAG	IBM use only

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
336	(150)	ADDRESS	4	SVTXLSCL	IBM use only - Caller must be AMODE 31, key 0, supervisor state, enabled for I/O and external interrupts, holding no locks. - Task mode. - Primary ASC mode. - P=S=H memory mode. - Load this address into GPR 15, - Issue BASR 14,15. - All registers are preserved as routine uses BAKR-PR. - No input registers are needed. - On exit, GPR 15 contains the return code: 0 = Routine successfully completed. 4 = Routine invoked in incorrect environment. 8 = Routine had an unexpected error. - Potential Abend Codes:
AC7 REASON-CODE 00450001: Routine was not executed because it was not in the proper environment.					
340	(154)	ADDRESS	4	SVTXSPGW	Address of IEAVSPGW. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
344	(158)	ADDRESS	4	SVTXSPFW	Address of IEAVSPFW. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
348	(15C)	ADDRESS	4	SVTXEGRDIAGNOSTICAREAOFFSET	Offset of EGR diagnostic area SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
352	(160)	CHARACTER	4	SVTXMACHTYPE	The EBCDIC machine type at IPL
356	(164)	ADDRESS	4	SVTX_PCAC@	PCAC address
360	(168)	SIGNED	2	SVTXEGR_TIMESTAMP_CPUID	CPU id that last invoked global recovery at time in SVTXEGR_Timestamp. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
362	(16A)	SIGNED	2	SVTXEGR_TIMESTAMP_CPUID_RECONFIG	CPU id that last invoked global recovery at time in SVTXEGR_Timestamp_Reconfig. SERIALIZATION: ENQ on SYSZVARY.CPU. OWNERSHIP: Supervisor Control
364	(16C)	BITSTRING	6	SVTXDIAG2	IBM use only
370	(172)	BITSTRING	110	SVTXR172	Reserved
480	(1E0)	BITSTRING	4	SVTX_ICAB_ADDR	Address of ICAB
484	(1E4)	BITSTRING	8	SVTX_DIAG1E4	Diagnostic data for IBM use only
492	(1EC)	ADDRESS	4	SVTX_IEAVERID_RISGNL_EP@	
496	(1F0)	ADDRESS	4	SVTX_IEAVCTRS_RISGNL_EP@	
500	(1F4)	ADDRESS	4	SVTX_IEAVCTRS_RISGNL_AREA@	
504	(1F8)	ADDRESS	4	SVTXJAON	IEAVJAON
508	(1FC)	SIGNED	4	SVTXEGR_SEQNUM	Sequence number incremented when IEAVEGR receives control
512	(200)	CHARACTER	1	(0)	Fields used to maintain the pool of SSRBs and XSBs used for the normal SSRB pool. OWNERSHIP: Supervisor Control
512	(200)	DBL WORD	8	SVTXSSRBPOOL(0)	Doubleword for SvtxSSRBSynch and SvtxSSRBPtr. SERIALIZATION: CDS

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
512	(200)	SIGNED	4	SVTXSSRB SYNCH	Synchronization counter used in conjunction with SvtxSSRBPtr.
516	(204)	ADDRESS	4	SVTXSSRB PTR	Pointer to the next SSRB/XSB in the normal SSRB pool.
520	(208)	SIGNED	4	SVTXSSRB COUNT	Number of SSRB/XSBs in the normal SSRB pool which are available. Used for pool compression only. SERIALIZATION: CS
524	(20C)	SIGNED	2	SVTXSSRB MAX	Number of SSRB/XSBs in the normal SSRB pool which triggers pool contraction. SERIALIZATION: None, constant.
526	(20E)	SIGNED	2	SVTXSSRB MIN	Number of SSRB/XSBs which remain in the normal SSRB pool after pool contraction. SERIALIZATION: None, constant.
528	(210)	SIGNED	4	SVTXTYPE5 PCTG	Type 5 Percentage
532	(214)	SIGNED	4	SVTX0SPRCRPCTG	
536	(218)	BITSTRING	88	SVTX_MMT	
624	(270)	BITSTRING	88	SVTX_MMTV1	
712	(2C8)	BITSTRING	56	SVTX_MMTV2	
The cache line at X'300' was created to isolate a hot field so should not be used for other things unless there is reason...					
768	(300)	DBL WORD	8	SVTXTOKENPOOL(0)	Doubleword for SvtxTokenSynch and SvtxTokenPtr. SERIALIZATION: CDS
768	(300)	SIGNED	4	SVTXTOKENSYNCH	Synchronization counter used in conjunction with SvtxTokenPtr.
772	(304)	ADDRESS	4	SVTXTOKENPTR	Pointer to the next SSRB/XSB in the pool used for SUSPEND with token.
776	(308)	SIGNED	4	SVTXTOKENCOUNT	Number of SSRB/XSBs in the SUSPEND with token pool which are available. Used for pool compression only. SERIALIZATION: CS
780	(30C)	SIGNED	2	SVTXTOKENMAX	Number of SSRB/XSBs in the SUSPEND with token pool which triggers pool contraction. SERIALIZATION: None, constant.
782	(30E)	SIGNED	2	SVTXTOKENMIN	Number of SSRB/XSBs which remain in the SUSPEND with token pool after pool contraction. SERIALIZATION: None, constant.
784	(310)	BITSTRING	1	SVTXR310	
The cache line at X'400' was created to isolate a hot field so should not be used for other things unless there is reason...					
1024	(400)	DBL WORD	8	SVTXWORKAREAPOL(0)	Doubleword for SvtxWORKAREASynch and SvtxWORKAREAPtr. SERIALIZATION: CDS
1024	(400)	SIGNED	4	SVTXWORKAREASYNCH	Synchronization counter used in conjunction with SvtxWORKAREAPtr.
1028	(404)	ADDRESS	4	SVTXWORKAREAPTR	Pointer to the next SSRB/XSB in the pool used for WORKAREA
1032	(408)	SIGNED	4	SVTXWORKAREACOUNT	Number of SSRB/XSBs in the WORKAREA pool which are available. Used for pool compression only. SERIALIZATION: CS
1036	(40C)	SIGNED	2	SVTXWORKAREAMAX	Number of SSRB/XSBs in the WORKAREA pool which triggers pool contraction. SERIALIZATION: None, constant.

Table 762. Structure SVTX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1038	(40E)	SIGNED	2	SVTXWORKAREAMIN	Number of SSRB/XSBs which remain in the WORKAREA pool after pool contraction. SERIALIZATION: None, constant.
1040	(410)	BITSTRING	240	SVTXR410	
1280	(500)	BITSTRING	128	SVTX_MMTV2A	
1408	(580)	BITSTRING	128	SVTXR580	
1536	(600)	DBL WORD	8	SVTXEND(0)	End of the SVTX.

Table 763. Cross Reference for IHASVIX

Name	Offset	Hex Tag
SVTX	0	
SVTX_AICB_INUSE	D6	4
SVTX_CRYPTRS_ACTIVE	D6	40
SVTX_CRYPTRS_NEVER	D6	80
SVTX_CTRS_DID_EARLYAS	D6	8
SVTX_DIAG1E4	1E4	
SVTX_FREEWUQH_AREA	120	
SVTX_FREEWUQH_COUNT	124	
SVTX_FREEWUQH_PTR	120	
SVTX_ICAB_ADDR	1E0	
SVTX_IEAVCTRS_RISGNL_AREA@	1F4	
SVTX_IEAVCTRS_RISGNL_EP@	1F0	
SVTX_IEAVERID_RISGNL_EP@	1EC	
SVTX_IMCB_ADDR	98	
SVTX_ISN012E_DOMID	DC	
SVTX_MMT	218	
SVTX_MMTV1	270	
SVTX_MMTV2	2C8	
SVTX_MMTV2A	500	
SVTX_NNPICTRS_ACTIVE	D6	10
SVTX_NNPICTRS_NEVER	D6	20
SVTX_PCAC@	164	
SVTX_RIMF@	9C	
SVTX_SPIN_TRACE_START_TRIGGER	110	
SVTX_WUQH_WEE_TRAILER	128	
SVTXBLXNSYSDEFINED	100	
SVTXBLXNSYSINUSE	104	
SVTXBLXSTAT	F8	
SVTXBLXSYSDEFINED	F8	
SVTXBLXSYSINUSE	FC	

Table 763. Cross Reference for IHASVTX (continued)

Name	Offset	Hex Tag
SVTXCADALET	68	
SVTXCADFSPTR	6C	
SVTXCADSTOKEN	B0	
SVTXCEEQ	60	
SVTXCIEEQ	D8	
SVTXCWTM	48	
SVTXDIAG	130	
SVTXDIAG2	16C	
SVTXDPSN	64	
SVTXEDSRRETRYCOUNT	12C	
SVTXEGR_SEQNUM	1FC	
SVTXEGR_TIMESTAMP	40	
SVTXEGR_TIMESTAMP_CPUID	168	
SVTXEGR_TIMESTAMP_CPUID_RECONFIG	16A	
SVTXEGR_TIMESTAMP_RECONFIG	118	
SVTXEGRDIAGNOSTICAREAOFFSET	15C	
SVTXEND	600	
SVTXESPN	28	
SVTXESSX	AC	
SVTXFCIP	58	
SVTXFCIPC	5C	
SVTXFCIPP	58	
SVTXFCP	50	
SVTXFCPC	54	
SVTXFCPP	50	
SVTXFLAGS	D6	
SVTXFLSCOUNT	90	
SVTXFLSMAX	94	
SVTXFLSMIN	96	
SVTXFLSPool	88	
SVTXFLSPTR	8C	
SVTXFLSSYNCH	88	
SVTXFWP	30	
SVTXFWPC	34	
SVTXFWPP	30	
SVTXJA0N	1F8	
SVTXLSCL	150	
SVTXLXNSYSDEFINED	E4	
SVTXLXNSYSINUSE	E6	

Table 763. Cross Reference for IHASVTX (continued)

Name	Offset	Hex Tag
SVTXLXSTAT	E0	
SVTXLXSYSDEFINED	E0	
SVTXLXSYSINUSE	E2	
SVTXMACHTYPE	160	
SVTXMDEID	BC	
SVTXMLSCOUNT	80	
SVTXMLSMAX	84	
SVTXMLSMIN	86	
SVTXMLSPool	78	
SVTXMLSPTR	7C	
SVTXMLSSYNCH	78	
SVTXNSBLX	108	
SVTXOSPRCRPCTG	214	
SVTXPMEADDRESSTABLE@	A4	
SVTXREALSPACEALET	D0	
SVTXREALSPACEEAX	D4	
SVTXR0C0	C0	
SVTXR0D7	D7	
SVTXR172	172	
SVTXR310	310	
SVTXR410	410	
SVTXR580	580	
SVTXSDEID	B8	
SVTXSPDE3	E8	
SVTXSPDE3_CPU	F0	
SVTXSPDE3_SEEN_ADDR	F4	
SVTXSPFW	158	
SVTXSPGW	154	
SVTXSPMA	A8	
SVTXSRBPMEPOOLID	A0	
SVTXSRBPROMOTIONTABLEADDR	10C	
SVTXSRBSCPID	74	
SVTXSRBSDATD	70	
SVTXSSRBCount	208	
SVTXSSRBCount_MOVED	C8	
SVTXSSRBMAX	20C	
SVTXSSRBMAX_MOVED	CC	
SVTXSSRBMIN	20E	
SVTXSSRBMIN_MOVED	CE	



Table 763. Cross Reference for IHASVTX (continued)

Name	Offset	Hex Tag
SVTXSSRBPOOL	200	
SVTXSSRBPOOL_MOVED	C0	
SVTXSSRBPTR	204	
SVTXSSRBSYNCH	200	
SVTXSVTX	0	
SVXTESQ	38	
SVXTOKENCOUNT	308	
SVXTOKENMAX	30C	
SVXTOKENMIN	30E	
SVXTOKENPOOL	300	
SVXTOKENPOOL_MOVED	98	
SVXTOKENPTR	304	
SVXTOKENSYNCH	300	
SVTXTR2P	4C	
SVXTYPE5PCTG	210	
SVTXWBCH	10	
SVTXWEBS	2C	
SVTXWEEL	8	
SVTXWIAD	3E	
SVTXWORKAREACOUNT	408	
SVTXWORKAREAMAX	40C	
SVTXWORKAREAMIN	40E	
SVTXWORKAREAPOL	400	
SVTXWORKAREAPTR	404	
SVTXWORKAREASYNCH	400	
SVTXWPM	C	
SVTXWUQD	24	
SVTXWUQP	4	
SVTXWUQ1	14	
SVTXWUQ2	18	
SVTXWUQ3	1C	
SVTXWUQ4	20	
SVTXXMPOSTNOLLOCKTRIGGER	3C	

## IHATDB information

### IHATDB programming interface information

IHATDB is a programming interface.

## IHATDB heading information

<b>Common name:</b>	Transaction Diagnostic Block
<b>Macro ID:</b>	IHATDB
<b>DSECT name:</b>	TDB
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: Caller-supplied Key: Caller-supplied Residency: Caller-supplied
<b>Size:</b>	TDB -- X'0100' bytes
<b>Created by:</b>	- The machine, and placed into low storage field PsaxPITDB for a program interruption that occurs while the CPU is in the transactional-execution mode. This is the PITDB. - The user of TBEGIN/TBEGINC, and set by the machine on a transaction abort. This is the user TDB.
<b>Pointed to by:</b>	None
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the Transaction Diagnostic Block. This is an architected area. For complete information, refer to the Principles of Operation.

## IHATDB mapping

Table 764. Structure TDB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDB	
0	(0)	BITSTRING	1	TDB_FORMAT	Byte 0: Refer to the equates with names beginning TDB_Format_ for information about each possible value and its meaning
1	(1)	BITSTRING	1	TDB_FLAGS	Byte 1: Flags
Bit definitions:					
		1... ....		TDB_FLAGS_CTV	"X'80'" Conflict Token Validity
		.1.. ....		TDB_FLAGS_CTI	"X'40'" Constrained-Transaction Indication
2	(2)	CHARACTER	4	TDB_R002	Bytes 2-5: Reserved
6	(6)	SIGNED	2	TDB_TND	Bytes 6-7: Transaction Nesting Depth when the transaction was aborted
8	(8)	BITSTRING	8	TDB_TAC	Bytes 8-F: Transaction Abort Code. If programmatically examining this code, your program must be able to accept codes not currently defined
16	(10)	ADDRESS	8	TDB_CONFLICTTOKEN	Bytes 10-17: For transactions aborted due to fetch or store conflict (abort codes 9 and 10), this is the logical address at which the conflict was detected. Meaningful only when the CTV bit is on.

Table 764. Structure TDB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	ADDRESS	8	TDB_ABORTEDTRANIA	Bytes 18-1F: Normally contains the address of the instruction that would have been executed next had the transaction not been aborted.
32	(20)	BITSTRING	1	TDB_EAD	Byte 20: Exception Access ID in user TDB. Reserved in PITDB
33	(21)	BITSTRING	1	TDB_DXC	Byte 21: Data Exception Code in user TDB. Reserved in PITDB
34	(22)	CHARACTER	2	TDB_R022	Bytes 22-23: Reserved
36	(24)	CHARACTER	4	TDB_PIID	Bytes 24-27: Program Interruption Identification in user TDB. Reserved in PITDB
40	(28)	CHARACTER	8	TDB_TEID	Bytes 28-2F: Translation Exception Identification in user TDB. Reserved in PITDB
48	(30)	CHARACTER	8	TDB_BEA	Bytes 30-37: Breaking Event Address in user TDB. Reserved in PITDB
56	(38)	CHARACTER	56	TDB_R038	Bytes 38-6F: Reserved
112	(70)	CHARACTER	16	TDB_MDDI	Bytes 70-7F: Model-dependent diagnostic info
128	(80)	CHARACTER	128	TDB_GRS	Bytes 80-FF: 64-bit GPRs 0-15
128	(80)	X'0'	0	TDB_FORMAT_UNPREDICTABLE	"0" The remaining fields are unpredictable
128	(80)	X'1'	0	TDB_FORMAT_1	"1" This is a format-1 TDB
128	(80)	X'100'	0	TDB_LEN	"*-TDB"

Table 765. Cross Reference for IHATDB

Name	Offset	Hex Tag
TDB	0	
TDB_ABORTEDTRANIA	18	
TDB_BEA	30	
TDB_CONFLICTTOKEN	10	
TDB_DXC	21	
TDB_EAD	20	
TDB_FLAGS	1	
TDB_FLAGS_CTI	1	40
TDB_FLAGS_CTV	1	80
TDB_FORMAT	0	
TDB_FORMAT_UNPREDICTABLE	80	0
TDB_FORMAT_1	80	1
TDB_GRS	80	
TDB_LEN	80	100
TDB_MDDI	70	
TDB_PIID	24	
TDB_R002	2	
TDB_R022	22	
TDB_R038	38	

Table 765. Cross Reference for IHATDB (continued)

Name	Offset	Hex Tag
TDB_TAC	8	
TDB_TEID	28	
TDB_TND	6	

## IHATDRMT information

### IHATDRMT programming interface information

IHATDRMT is a programming interface.

### IHATDRMT heading information

<b>Common name:</b>	Transaction dump REMOTE information area
<b>Macro ID:</b>	IHATDRMT
<b>DSECT name:</b>	TDRMT TDRMT_MODEL TDRMT_SYSLIST TDRMT_GRPLIST TDRMT_SDATA TDRMT_SUBPLST TDRMT_COPY
<b>Owning component:</b>	SDUMP (SCDMP)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: Caller-supplied Key: Caller-supplied Residency: Caller-supplied
<b>Size:</b>	Variable TDRMT -- X'0004' bytes TDRMT_MODEL -- X'0004' bytes TDRMT_SYSLIST -- X'0014' bytes + X'0018' bytes for each entry after the first TDRMT_GRPLIST -- X'001C' bytes + X'0018' bytes for each entry after the first TDRMT_SDATA -- X'0008' bytes TDRMT_SUBPLST -- X'0006' bytes + X'0004' bytes for each entry after the first TDRMT_COPY -- X'0004' bytes
<b>Created by:</b>	Created by Caller and passed as parameter on REMOTE keyword on IEATDUMP
<b>Pointed to by:</b>	IEATDUMP parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the data passed by the REMOTE keyword.

### IHATDRMT mapping

Table 766. Structure TDRMT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT	

Table 766. Structure TDRMT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	SIGNED	4	TDRMT_LENGTH	Total length for REMOTE info. Data begins at TDRMT_DATA with entries contiguously defined from that point.
4	(4)	CHARACTER	1	TDRMT_DATA(0)	Start of remote data
Constants to identify the DSECT. Note that the constants ending with "_COPY" should use the TDRMT_COPY DSECT.					
4	(4)	X'4'	0	TDRMT_IDCON_SYSLIST	"4"
4	(4)	X'8'	0	TDRMT_IDCON_GRPLIST	"8"
4	(4)	X'C'	0	TDRMT_IDCON_SDATA	"12"
4	(4)	X'D'	0	TDRMT_IDCON_SDATA_COPY	"13"
4	(4)	X'20'	0	TDRMT_IDCON_SUBPLST	"32"
4	(4)	X'4'	0	TDRMT_LEN	"*-TDRMT"

Table 767. Structure TDRMT\_MODEL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_MODEL	
0	(0)	CHARACTER	4	TDRMT_MODEL_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_MODEL_ID	Contains the ID of the entry
2	(2)	SIGNED	2	TDRMT_MODEL_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	1	TDRMT_MODEL_ENTRY(0)	Start of data for the entry
4	(4)	X'4'	0	TDRMT_MODEL_LEN	"*-TDRMT_MODEL"

Table 768. Structure TDRMT\_SYSLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SYSLIST	
0	(0)	CHARACTER	4	TDRMT_SYSLIST_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_SYSLIST_ID	Use TDRMT_IDCON_SYSLIST to initialize
2	(2)	SIGNED	2	TDRMT_SYSLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	TDRMT_SYSLIST_ENTRY(0)	This represents an array of sysname/jobname or sysname/ASID pairs
4	(4)	CHARACTER	8	TDRMT_SYSLIST_SYSNAME	The system name
12	(C)	CHARACTER	8	TDRMT_SYSLIST_JOBNAME_ASID(0)	Area that contains either all 0s (no jobname/ASID), JOBNAME/ID, or ZEROES&ASID
12	(C)	CHARACTER	8	TDRMT_SYSLIST_JOBNAME(0)	Fill this in, left-justified, padded with blanks, if specifying a jobname. The entire field should be 0s if neither jobname nor ASID is wanted.
12	(C)	CHARACTER	6	TDRMT_SYSLIST_ZEROES	Make sure this is zeroes if specifying an ASID.
18	(12)	SIGNED	2	TDRMT_SYSLIST_ASID	Fill this in, zeroing the previous field too, if specifying an ASID.
18	(12)	X'14'	0	TDRMT_SYSLIST_LEN	"*-TDRMT_SYSLIST"

Table 769. Structure TDRMT\_GRPLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_GRPLIST	
0	(0)	CHARACTER	4	TDRMT_GRPLIST_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_GRPLIST_ID	Use TDRMT_IDCON_GRPLIST to initialize
2	(2)	SIGNED	2	TDRMT_GRPLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	24	TDRMT_GRPLIST_ENTRY(0)	This represents an array of group/member pairs. If all members of the group are wanted, use a member name of "*".
4	(4)	CHARACTER	8	TDRMT_GRPLIST_GRPNAME	The group name
12	(C)	CHARACTER	16	TDRMT_GRPLIST_MEMNAME	The member name
12	(C)	X'1C'	0	TDRMT_GRPLIST_LEN	"*-TDRMT_GRPLIST"

Table 770. Structure TDRMT\_SDATA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SDATA	This field should be set if the caller has indicated SDATA options for the dump.
0	(0)	CHARACTER	4	TDRMT_SDATA_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_SDATA_ID	Use TDRMT_IDCON_SDATA to initialize
2	(2)	SIGNED	2	TDRMT_SDATA_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	TDRMT_SDATA_OPTIONS(0)	These are mapped in the same order as they appear in the IEATDUMP parameter list
4	(4)	BITSTRING	1	TDRMT_SDATA_BYTE1(0)	
		1... ..		TDRMT_SDATA_DEFS	"X'80'" Corresponds to SDATA=DEF on IEATDUMP
		.1.. ..		TDRMT_SDATA_ALLNUC	"X'40'" Corresponds to SDATA=ALLNUC on IEATDUMP
		..1. ....		TDRMT_SDATA_CSA	"X'20'" Corresponds to SDATA=CSA on IEATDUMP
		...1 ....		TDRMT_SDATA_GRSQ	"X'10'" Corresponds to SDATA=GRSQ on IEATDUMP
		.... 1...		TDRMT_SDATA_LPA	"X'08'" Corresponds to SDATA=LPA on IEATDUMP
		.... .1..		TDRMT_SDATA_LSQA	"X'04'" Corresponds to SDATA=LSQA on IEATDUMP
		.... ..1.		TDRMT_SDATA_NUC	"X'02'" Corresponds to SDATA=NUC on IEATDUMP
		.... ...1		TDRMT_SDATA_RGN	"X'01'" Corresponds to SDATA=RGN on IEATDUMP
5	(5)	BITSTRING	1	TDRMT_SDATA_BYTE2(0)	
		1... ..		TDRMT_SDATA_SQA	"X'80'" Corresponds to SDATA=SQA on IEATDUMP
		.1.. ..		TDRMT_SDATA_SUM	"X'40'" Corresponds to SDATA=SUM on IEATDUMP
		..1. ....		TDRMT_SDATA_SWA	"X'20'" Corresponds to SDATA=SWA on IEATDUMP
		...1 ....		TDRMT_SDATA_TRT	"X'10'" Corresponds to SDATA=TRT on IEATDUMP
		.... 1...		TDRMT_SDATA_PSA	"X'08'" Corresponds to SDATA=PSA on IEATDUMP
6	(6)	CHARACTER	2	TDRMT_SDATA_RSVD	Reserved, must be 0

Table 770. Structure TDRMT\_SDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
6	(6)	X'8'	0	TDRMT_SDATA_LEN	"*-TDRMT_SDATA"

Table 771. Structure TDRMT\_SUBPLST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SUBPLST	
0	(0)	CHARACTER	4	TDRMT_SUBPLST_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_SUBPLST_ID	Use TDRMT_IDCON_SUBPLST to initialize
2	(2)	SIGNED	2	TDRMT_SUBPLST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	2	TDRMT_SUBPLST_ENTRY(0)	This represents an array of Subpools
4	(4)	SIGNED	2	TDRMT_SUBPLST_SUBPOOL	The subpool
4	(4)	X'6'	0	TDRMT_SUBPLST_LEN	"*-TDRMT_SUBPLST"

Table 772. Structure TDRMT\_COPY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_COPY	
0	(0)	CHARACTER	4	TDRMT_COPY_HEADER(0)	
0	(0)	SIGNED	2	TDRMT_COPY_ID	Use TDRMT_XXXXX_COPY to initialize
2	(2)	SIGNED	2	TDRMT_COPY_LENGTH	Total length of area including this length field and the ID field
2	(2)	X'4'	0	TDRMT_COPY_LEN	"*-TDRMT_COPY"

Table 773. Cross Reference for IHATDRMT

Name	Offset	Hex	Tag
TDRMT	0		
TDRMT_COPY	0		
TDRMT_COPY_HEADER	0		
TDRMT_COPY_ID	0		
TDRMT_COPY_LEN	2		4
TDRMT_COPY_LENGTH	2		
TDRMT_DATA	4		
TDRMT_GRPLIST	0		
TDRMT_GRPLIST_ENTRY	4		
TDRMT_GRPLIST_GRPNAME	4		
TDRMT_GRPLIST_HEADER	0		
TDRMT_GRPLIST_ID	0		
TDRMT_GRPLIST_LEN	C		1C
TDRMT_GRPLIST_LENGTH	2		
TDRMT_GRPLIST_MEMNAME	C		
TDRMT_IDCON_GRPLIST	4		8
TDRMT_IDCON_SDATA	4		C
TDRMT_IDCON_SDATA_COPY	4		D

Table 773. Cross Reference for IHATDRMT (continued)

Name	Offset	Hex Tag
TDRMT_IDCON_SUBPLST	4	20
TDRMT_IDCON_SYSLIST	4	4
TDRMT_LEN	4	4
TDRMT_LENGTH	0	
TDRMT_MODEL	0	
TDRMT_MODEL_ENTRY	4	
TDRMT_MODEL_HEADER	0	
TDRMT_MODEL_ID	0	
TDRMT_MODEL_LEN	4	4
TDRMT_MODEL_LENGTH	2	
TDRMT_SDATA	0	
TDRMT_SDATA_ALLNUC	4	40
TDRMT_SDATA_BYTE1	4	
TDRMT_SDATA_BYTE2	5	
TDRMT_SDATA_CSA	4	20
TDRMT_SDATA_DEFS	4	80
TDRMT_SDATA_GRSQ	4	10
TDRMT_SDATA_HEADER	0	
TDRMT_SDATA_ID	0	
TDRMT_SDATA_LEN	6	8
TDRMT_SDATA_LENGTH	2	
TDRMT_SDATA_LPA	4	8
TDRMT_SDATA_LSQA	4	4
TDRMT_SDATA_NUC	4	2
TDRMT_SDATA_OPTIONS	4	
TDRMT_SDATA_PSA	5	8
TDRMT_SDATA_RGN	4	1
TDRMT_SDATA_RSVD	6	
TDRMT_SDATA_SQA	5	80
TDRMT_SDATA_SUM	5	40
TDRMT_SDATA_SWA	5	20
TDRMT_SDATA_TRT	5	10
TDRMT_SUBPLST	0	
TDRMT_SUBPLST_ENTRY	4	
TDRMT_SUBPLST_HEADER	0	
TDRMT_SUBPLST_ID	0	
TDRMT_SUBPLST_LEN	4	6
TDRMT_SUBPLST_LENGTH	2	
TDRMT_SUBPLST_SUBPOOL	4	



Table 773. Cross Reference for IHATDRMT (continued)

Name	Offset	Hex Tag
TDRMT_SYSLIST	0	
TDRMT_SYSLIST_ASID	12	
TDRMT_SYSLIST_ENTRY	4	
TDRMT_SYSLIST_HEADER	0	
TDRMT_SYSLIST_ID	0	
TDRMT_SYSLIST_JOBNAME	C	
TDRMT_SYSLIST_JOBNAME_ASID	C	
TDRMT_SYSLIST_LEN	12	14
TDRMT_SYSLIST_LENGTH	2	
TDRMT_SYSLIST_SYSNAME	4	
TDRMT_SYSLIST_ZEROES	C	

## IHATDUMP information

### IHATDUMP heading information

<b>Common name:</b>	Transaction Dump parameter list
<b>Macro ID:</b>	IHATDUMP
<b>DSECT name:</b>	TDUMP
<b>Owning component:</b>	SVC Dump (SCDMP)
<b>Eye-catcher ID:</b>	TDMP Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: One per dump request Subpool: Any Key: Any Residency: Any
<b>Size:</b>	108 bytes
<b>Created by:</b>	Transaction dump requestor
<b>Pointed to by:</b>	Reg 1 on entry to SVC 33
<b>Serialization:</b>	NONE
<b>Function:</b>	This is the mapping macro for the transaction dump parameter list as produced by the IEATDUMP macro.

### IHATDUMP mapping

Table 774. Structure TDUMP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDUMP	?IEATDUMP parameter list
0	(0)	CHARACTER	4	TDMPID	Parameter list name

Table 774. Structure TDUMP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	SIGNED	2	TDMPLEN	Parameter list length
6	(6)	BITSTRING	1	TDMPVERSION	Parameter list version
7	(7)	CHARACTER	1		Reserved
8	(8)	CHARACTER	2	TDMPSDATA	SDATA options
8	(8)	BITSTRING	1	TDMPSDATA1	First byte of SDATA options
Bit definitions:					
		1... ....		TDMPDEFS	"X'80'" SDATA=DEFS specified
		.1.. ....		TDMPALLNUC	"X'40'" SDATA=ALLNUC
		..1. ....		TDMPCSA	"X'20'" SDATA=CSA specified
		...1 ....		TDMPGRSQ	"X'10'" SDATA=GRSQ specified
		.... 1...		TDMPPLPA	"X'08'" SDATA=LPA specified
		.... .1..		TDMPLSQA	"X'04'" SDATA=LSQA specified
		.... ..1.		TDMPNUC	"X'02'" SDATA=NUC specified
		.... ...1		TDMPRGN	"X'01'" SDATA=RGN specified
9	(9)	BITSTRING	1	TDMPSDATA2	Second byte of SDATA options
Bit definitions:					
		1... ....		TDMPDQSA	"X'80'" SDATA=DQSA specified
		.1.. ....		TDMPDQSUM	"X'40'" SDATA=DQSUM specified
		..1. ....		TDMPDQSWA	"X'20'" SDATA=DQSWA specified
		...1 ....		TDMPDQTRT	"X'10'" SDATA=DQTRT specified
		.... 1...		TDMPDQPSA	"X'08'" SDATA=DQPSA specified
10	(A)	BITSTRING	1	TDMPDQFLAGS1	First byte of flags
Bit definitions:					
		1... ....		TDMPDQASYNC	"X'80'" ASYNC=YES specified
		..1. ....		TDMPDQDSNTTEST	"X'20'" DSNTTEST specified
		...1 ....		TDMPDQLIST64	"X'10'" TdmpList&Alet = LIST64
		.... ..1.		TDMPDQASYNC TARGET	"X'02'" Async dump target
		.... ...1		TDMPDQREMOTE	"X'01'" Remote dump
11	(B)	CHARACTER	1		Reserved
12	(C)	CHARACTER	8	TDMPDQSPSTOKEN	Capture dataspace STOKEN
20	(14)	ADDRESS	4	TDMPDQSPORIGIN	Capture dataspace origin
24	(18)	ADDRESS	4	TDMPDQSPRECORDS@	Capture dataspace records address
28	(1C)	CHARACTER	8	TDMPDQDDNAME	DDName
28	(1C)	ADDRESS	4	TDMPDQDCB@	DCB address
32	(20)	SIGNED	4	TDMPDQDCBALET	DCB alet
36	(24)	ADDRESS	4	TDMPDQDSN@	Data set name address
40	(28)	SIGNED	4	TDMPDQDSNALET	Data set name alet
44	(2C)	ADDRESS	4	TDMPDQHDR@	Header address
48	(30)	SIGNED	4	TDMPDQHDRALET	Header alet
52	(34)	ADDRESS	4	TDMPDQIDX@	Dump index data set address
56	(38)	SIGNED	4	TDMPDQIDXALET	Dump index data set alet
60	(3C)	ADDRESS	4	TDMPDQSYMREC@	Symptom record address

Table 774. Structure TDUMP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
64	(40)	SIGNED	4	TDMPSYMRECALET	Symptom record alet
68	(44)	ADDRESS	4	TDMPINTOKEN@	Incident token address
72	(48)	SIGNED	4	TDMPINTOKENALET	Incident token alet
76	(4C)	ADDRESS	4	TDMPREMOTE@	Remote area address
80	(50)	SIGNED	4	TDMPREMOTEALET	Remote area alet
84	(54)	ADDRESS	4	TDMPPROBDESC@	Problem description address
88	(58)	SIGNED	4	TDMPPROBDESCALET	Problem description alet
92	(5C)	ADDRESS	4	TDMPLIST@	List address
96	(60)	SIGNED	4	TDMPLISTALET	List alet
100	(64)	ADDRESS	4	TDMPSUBPLST@	Subplst address
104	(68)	SIGNED	4	TDMPSUBPLSTALET	Subplst alet
108	(6C)	ADDRESS	4	TDMPDSPLIST@	Dsplist address
112	(70)	SIGNED	4	TDMPDSPLISTALET	Dsplist alet
116	(74)	ADDRESS	4	TDMP ECB@	Ecb address
120	(78)	SIGNED	4	TDMP ECB ALET	Ecb alet
Transaction dump return codes					
120	(78)	X'0'	0	TDMPRC_OK	"0" A complete transaction dump was taken
120	(78)	X'4'	0	TDMPRC_PARTIAL_DUMP	"4" A partial transaction dump was taken
120	(78)	X'8'	0	TDMPRC_NO_DUMP	"8" No transaction dump was taken
120	(78)	X'C'	0	TDMPRC_INTERNAL_ERROR	"12" No transaction dump was taken due to an internal error
120	(78)	X'10'	0	TDMPRC_BADAD00RETURNCODE	"16" IEAVTDMP received an unknown return code from IEAVAD00
Transaction dump reason codes for return code = 0					
120	(78)	X'0'	0	TDMPRSN_OK	"0" A complete transaction dump was taken
Transaction dump reason codes for return code = 4					
120	(78)	X'1'	0	TDMPRSN_DATASETTOOSMALL	"1" The data set was too small to contain the complete dump
120	(78)	X'2'	0	TDMPRSN_CONTENTIONDETECTED	"2" Contention was detected
120	(78)	X'3'	0	TDMPRSN_INVALIDDSNAME	"3" Couldn't build valid DSName for next dump dataset, or DSN too long
120	(78)	X'4'	0	TDMPRSN_ALLOCFAILED	"4" Couldn't allocate the next dump dataset
120	(78)	X'5'	0	TDMPRSN_OPENDCBFAILED	"5" Couldn't open the dump dataset
120	(78)	X'6'	0	TDMPRSN_TOOMANYSECTIONS	"6" Too many dump sections created
120	(78)	X'7'	0	TDMPRSN_RANGETABLEFULL	"7" A range table in SDUMP is full
120	(78)	X'8'	0	TDMPRSN_TDUMPTOOBIG	"8" Automatically allocated TDUMP, without the &DS symbol in the DSN template, exceeds the maximum size of 2 gigabytes
Transaction dump reason codes for return code = 8					
120	(78)	X'0'	0	TDMPRSN_DSNTSTOK	"0" No data set, but the name pattern is alright

Table 774. Structure TDUMP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
120	(78)	X'1'	0	TDMPRSN_PARMADDRZERO	"1" The address of the transaction dump parameter list was zero
120	(78)	X'2'	0	TDMPRSN_CHNGDUMPNODUMP	"2" The dump was suppressed by CHNGDUMP
120	(78)	X'3'	0	TDMPRSN_SUPPRESSED BYSLIP	"3" The dump was suppressed by SLIP
120	(78)	X'4'	0	TDMPRSN_BADPARMALET	"4" The transaction dump parmlist ALET was not valid
120	(78)	X'5'	0	TDMPRSN_BADPARMADDR	"5" The transaction dump parmlist was not addressable
120	(78)	X'6'	0	TDMPRSN_BADPARMVERSION	"6" The transaction dump version was not valid
120	(78)	X'7'	0	TDMPRSN_BADPARMLENGTH	"7" The transaction dump length was not valid for the version specified
120	(78)	X'8'	0	TDMPRSN_NODEST	"8" No dump destination was specified in the transaction dump parmlist
120	(78)	X'9'	0	TDMPRSN_MORETHAN1DEST	"9" More than one dump destination was specified in the transaction dump parmlist
120	(78)	X'A'	0	TDMPRSN_BADDCBALET	"10" The ALET specified for the DCB in the transaction dump parmlist was not valid
120	(78)	X'B'	0	TDMPRSN_BADDCBADDR	"11" The DCB in the transaction dump parmlist was not addressable
120	(78)	X'C'	0	TDMPRSN_BADDSNALET	"12" The ALET specified for the DSN in the transaction dump parmlist was not valid
120	(78)	X'D'	0	TDMPRSN_BADDSNADDR	"13" The DSN in the transaction dump parmlist was not addressable
120	(78)	X'E'	0	TDMPRSN_NOHEADER	"14" No header was specified in the transaction dump parmlist
120	(78)	X'F'	0	TDMPRSN_BADHDRALET	"15" The ALET specified for the HDR in the transaction dump parmlist was not valid
120	(78)	X'10'	0	TDMPRSN_BADHDRADDR	"16" The HDR in the transaction dump parmlist was not addressable
120	(78)	X'11'	0	TDMPRSN_HDRTOOBIG	"17" The specified header was longer than 100 characters
120	(78)	X'12'	0	TDMPRSN_BADIDXALET	"18" The ALET specified for the IDX in the transaction dump parmlist was not valid
120	(78)	X'13'	0	TDMPRSN_BADIDXADDR	"19" The IDX in the transaction dump parmlist was not addressable
120	(78)	X'14'	0	TDMPRSN_IDXNOTVALID	"20" The specified dump index data set name was too long or not valid
120	(78)	X'15'	0	TDMPRSN_BADSYMRECALET	"21" The ALET specified for the SYMREC in the transaction dump parmlist was not valid
120	(78)	X'16'	0	TDMPRSN_BADSYMRECADDR	"22" The SYMREC in the transaction dump parmlist was not addressable
120	(78)	X'17'	0	TDMPRSN_SYMRECNOTVALID	"23" The SYMREC in the transaction dump parmlist was not valid
120	(78)	X'18'	0	TDMPRSN_BADINTOKENALET	"24" The ALET specified for the INTOKEN in the transaction dump parmlist was not valid
120	(78)	X'19'	0	TDMPRSN_BADINTOKENADDR	"25" The INTOKEN in the transaction dump parmlist was not addressable
120	(78)	X'1A'	0	TDMPRSN_BADREMOTEALET	"26" The ALET specified for the REMOTE in the transaction dump parmlist was not valid

Table 774. Structure TDUMP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
120	(78)	X'1B'	0	TDMPRSN_BADREMOTEADDR	"27" The REMOTE in the transaction dump parmlist was not addressable
120	(78)	X'1C'	0	TDMPRSN_REMOTENOTVALID	"28" The remote area in the transaction dump parmlist was not valid
120	(78)	X'1D'	0	TDMPRSN_BADLISTALET	"29" The ALET specified for the storage list in the transaction dump parmlist was not valid
120	(78)	X'1E'	0	TDMPRSN_BADLISTADDR	"30" The storage list in the transaction dump parmlist was not addressable
120	(78)	X'1F'	0	TDMPRSN_BADLISTRANGE	"31" A range in the storage list was not valid
120	(78)	X'20'	0	TDMPRSN_CALLERNOTAUTH	"32" The caller requested functions for which he was not authorized
120	(78)	X'21'	0	TDMPRSN_DSNAMEINVALID	"33" The specified data set name was not valid
120	(78)	X'22'	0	TDMPRSN_DSNAMETOOLONG	"34" The specified data set name was too long
120	(78)	X'23'	0	TDMPRSN_DSNAMEBADSYMBOL	"35" The specified data set name contained bad symbols
120	(78)	X'24'	0	TDMPRSN_DSPSERVFAILED	"36" Unable to create the transaction dump dataspace
120	(78)	X'25'	0	TDMPRSN_ALESERVFAILED	"37" Unable to access the transaction dump dataspace
120	(78)	X'26'	0	TDMPRSN_ALLOCATFAILED	"38" Unable to allocate the transaction dump data set
120	(78)	X'27'	0	TDMPRSN_SUPPRESSED BY DAE	"39" The dump was suppressed by DAE
120	(78)	X'2A'	0	TDMPRSN_BADECB	"42" The ECB was not accessible
120	(78)	X'34'	0	TDMPRSN_IOERROR	"52" An I/O error occurred writing to the data set
120	(78)	X'35'	0	TDMPRSN_OPENFAILED	"53" OPEN failed for the dump data set
120	(78)	X'36'	0	TDMPRSN_INVALIDBLOCKSIZE	"54" Dump data set has invalid block size
120	(78)	X'37'	0	TDMPRSN_BADDSP_RECORDS@	"55" The DSP_RECORDS@ field was not accessible
120	(78)	X'38'	0	TDMPRSN_DCBNOTSUPP	"56" The DCB option is not supported
120	(78)	X'39'	0	TDMPRSN_ASYNCYESNOTSUPP	"57" The ASYNC=YES option is not supported
120	(78)	X'3A'	0	TDMPRSN_DSNOTATEND	"58" DS SYMBOL FOUND IN MIDDLE OF DUMP DNS PATTERN (x3A)
120	(78)	X'3B'	0	TDMPRSN_TDUMPINPROGRESS	"59" There is another TDUMP in progress (x3B)
120	(78)	X'3C'	0	TDMPRSN_DSNTTESTFAILED	"60" The name pattern can not work on this system
120	(78)	X'3D'	0	TDMPRSN_RC8_REASONCOUNT	"61" Used to define reason related array dimension - should follow last new code
120	(78)	X'0'	0	TDMPRSN_LASTREASONHOLDER	"0" ++Placeholder++
Transaction dump reason codes for return code = 12					
120	(78)	X'1'	0	TDMPRSN_NOSAVEAREA	"1" IEAVAD00 was unable to obtain storage for IEAVTDMP's save and dynamic areas
120	(78)	X'2'	0	TDMPRSN_NORECOVERY	"2" IEAVTDMP was unable to establish a recovery environment

Table 774. Structure TDUMP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
120	(78)	X'3'	0	TDMPRSN_NOSDDATSTOR	"3" IEAVTDMP was unable to obtain storage for the SDDAT, SDDXATBL, and DSPD
120	(78)	X'4'	0	TDMPRSN_NOVSMTABLE	"4" IEAVTDMP was unable to obtain storage for the VSM table
120	(78)	X'5'	0	TDMPRSN_NODSTABLE	"5" IEAVTDMP was unable to obtain storage for the SDUMP data space range table
120	(78)	X'6'	0	TDMPRSN_NOSMWKSTOR	"6" IEAVTDMP was unable to obtain storage for the SMWK
120	(78)	X'7'	0	TDMPRSN_NOESDSTOR	"7" IEAVTDMP was unable to obtain storage for the ESD
120	(78)	X'8'	0	TDMPRSN_NOUSERSTOR	"8" IEAVTDMP was unable to obtain user storage for the CKSTOKEN routine
120	(78)	X'9'	0	TDMPRSN_NO0BUFSTOR	"9" IEAVTDMP was unable to obtain storage for the output buffer
120	(78)	X'A'	0	TDMPRSN_NODECBSTOR	"10" IEAVTDMP was unable to obtain storage for the DECB
120	(78)	X'B'	0	TDMPRSN_NOA253STOR	"11" IEAVTDMP was unable to obtain storage Area253
120	(78)	X'C'	0	TDMPRSN_NOATBSTOR	"12" IEAVTDMP was unable to get storage above the bar
120	(78)	X'D'	0	TDMPRSN_NOHVSHRTAB	"13" IEAVTDMP did not get HvCommon storage for HvShr Table
120	(78)	X'FF'	0	TDMPRSN_RECOVERYRECEIVEDCONTROL	"255" IEAVTDMP's recovery received control unexpectedly
120	(78)	X'7C'	0	TDUMP_LEN	"*-TDUMP"

Table 775. Cross Reference for IHATDUMP

Name	Offset	Hex	Tag
TDMPALLNUC	8		40
TDMPASYN	A		80
TDMPASYNCTARGET	A		2
TDMPCSA	8		20
TDMPDCB@	1C		
TDMPDCBALET	20		
TDMPDDNAME	1C		
TDMPDEFS	8		80
TDMPDSN@	24		
TDMPDSNALET	28		
TDMPDSNTEST	A		20
TDMPDSPLIST@	6C		
TDMPDSPLISTALET	70		
TDMPDSPORIGIN	14		
TDMPDSPRECORDS@	18		
TDMPDSPSTOKEN	C		
TDMP ECB@	74		

Table 775. Cross Reference for IHATDUMP (continued)

Name	Offset	Hex Tag
TDMPECBALET	78	
TDMPFLAGS1	A	
TDMPGRSQ	8	10
TDMPHDR@	2C	
TDMPHDRALET	30	
TDMPID	0	
TDMPIDX@	34	
TDMPIDXALET	38	
TDMPINTOKEN@	44	
TDMPINTOKENALET	48	
TDMPLEN	4	
TDMPLIST@	5C	
TDMPLISTALET	60	
TDMPLPA	8	8
TDMPLSQA	8	4
TDMPLST64	A	10
TDMPNUC	8	2
TDMPPROBDESC@	54	
TDMPPROBDESCALET	58	
TDMPPSA	9	8
TDMPRC_BADAD00RETURNCODE	78	10
TDMPRC_INTERNAL_ERROR	78	C
TDMPRC_NO_DUMP	78	8
TDMPRC_OK	78	0
TDMPRC_PARTIAL_DUMP	78	4
TDMPREMOTE	A	1
TDMPREMOTE@	4C	
TDMPREMOTEALET	50	
TDMPRGN	8	1
TDMPRSN_ALESERVFAILED	78	25
TDMPRSN_ALLOCATFAILED	78	26
TDMPRSN_ALLOCFAILED	78	4
TDMPRSN_ASYNCYESNOTSUPP	78	39
TDMPRSN_BADDCBADDR	78	B
TDMPRSN_BADDCBALET	78	A
TDMPRSN_BADDSNADDR	78	D
TDMPRSN_BADDSNALET	78	C
TDMPRSN_BADDSP_RECORDS@	78	37
TDMPRSN_BADECB	78	2A

Table 775. Cross Reference for IHATDUMP (continued)

Name	Offset	Hex Tag
TDMPRSN_BADHDRADDR	78	10
TDMPRSN_BADHDRALET	78	F
TDMPRSN_BADIDXADDR	78	13
TDMPRSN_BADIDXALET	78	12
TDMPRSN_BADINTOKENADDR	78	19
TDMPRSN_BADINTOKENALET	78	18
TDMPRSN_BADLISTADDR	78	1E
TDMPRSN_BADLISTALET	78	1D
TDMPRSN_BADLISTRANGE	78	1F
TDMPRSN_BADPARAMADDR	78	5
TDMPRSN_BADPARMALET	78	4
TDMPRSN_BADPARMLENGTH	78	7
TDMPRSN_BADPARAMVERSION	78	6
TDMPRSN_BADREMOTEADDR	78	1B
TDMPRSN_BADREMOTEALET	78	1A
TDMPRSN_BADSYMRECADDR	78	16
TDMPRSN_BADSYMRECALET	78	15
TDMPRSN_CALLERNOTAUTH	78	20
TDMPRSN_CHNGDUMPNODUMP	78	2
TDMPRSN_CONTENTIONDETECTED	78	2
TDMPRSN_DATASETTOOSMALL	78	1
TDMPRSN_DCBNOTSUPP	78	38
TDMPRSN_DSNAMEBADSYMBOL	78	23
TDMPRSN_DSNAMEINVALID	78	21
TDMPRSN_DSNAMETOOLONG	78	22
TDMPRSN_DSNOTATEND	78	3A
TDMPRSN_DSNTTESTFAILED	78	3C
TDMPRSN_DSNTTESTOK	78	0
TDMPRSN_DSPSERVFAILED	78	24
TDMPRSN_HDRTOOBIG	78	11
TDMPRSN_IDXNOTVALID	78	14
TDMPRSN_INVALIDBLOCKSIZE	78	36
TDMPRSN_INVALIDDSNAME	78	3
TDMPRSN_IOERROR	78	34
TDMPRSN_LASTREASONHOLDER	78	0
TDMPRSN_MORETHAN1DEST	78	9
TDMPRSN_NOATBSTORE	78	C
TDMPRSN_NOA253STORE	78	B
TDMPRSN_NODECBSTORE	78	A



Table 775. Cross Reference for IHATDUMP (continued)

Name	Offset	Hex Tag
TDMPRSN_NODEST	78	8
TDMPRSN_NODSTABLE	78	5
TDMPRSN_NOESDSTOR	78	7
TDMPRSN_NOHEADER	78	E
TDMPRSN_NOHVSHRTAB	78	D
TDMPRSN_NOOBUFSTOR	78	9
TDMPRSN_NORECOVERY	78	2
TDMPRSN_NOSAVEAREA	78	1
TDMPRSN_NOSDDATSTOR	78	3
TDMPRSN_NOSMWKSTOR	78	6
TDMPRSN_NOUSERSTOR	78	8
TDMPRSN_NOVSMTABLE	78	4
TDMPRSN_OK	78	0
TDMPRSN_OPENDCBFAILED	78	5
TDMPRSN_OPENFAILED	78	35
TDMPRSN_PARMADDRZERO	78	1
TDMPRSN_RANGETABLEFULL	78	7
TDMPRSN_RC8_REASONCOUNT	78	3D
TDMPRSN_RECOVERYRECEIVEDCONTROL	78	FF
TDMPRSN_REMOTENOTVALID	78	1C
TDMPRSN_SUPPRESSEDDBYDAE	78	27
TDMPRSN_SUPPRESSEDDBYSLIP	78	3
TDMPRSN_SYMRECNOTVALID	78	17
TDMPRSN_TDUMPINPROGRESS	78	3B
TDMPRSN_TDUMPTOOBIG	78	8
TDMPRSN_TOOMANYSECTIONS	78	6
TDMPDATA	8	
TDMPDATA1	8	
TDMPDATA2	9	
TDMPQA	9	80
TDMPSUBPLST@	64	
TDMPSUBPLSTALET	68	
TDMPSUM	9	40
TDMPWA	9	20
TDMPSYMREC@	3C	
TDMPSYMRECALET	40	
TDMPTRT	9	10
TDMPVERSION	6	
TDUMP	0	

Table 775. Cross Reference for IHATDUMP (continued)

Name	Offset	Hex Tag
TDUMP_LEN	78	7C

## IHAVBA information

### IHAVBA programming interface information

IHAVBA is a programming interface.

### IHAVBA heading information

<b>Common name:</b>	Validated Boot Area
<b>Macro ID:</b>	IHAVBA
<b>DSECT name:</b>	VBA VB_CertExtract VB_AuditArea VB_AA_DSNE VB_AA_DSNE_Mode
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: above 16M
<b>Size:</b>	VBA -- X'0040' bytes VB_CertExtract -- X'0140' bytes VB_AuditArea -- X'0070' bytes VB_AA_DSNE -- X'0070' bytes VB_AA_DSNE_Mode -- X'0100' bytes
<b>Created by:</b>	IEAIPL99 and various others
<b>Pointed to by:</b>	SVTVBAA (when not 0, and high bit is 0)
<b>Serialization:</b>	None required
<b>Function:</b>	Maps the interface data relevant to validated boot

### IHAVBA mapping

Table 776. Structure VBA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VBA	SVTVBAA
0	(0)	CHARACTER	4	VBA_ID	
4	(4)	BITSTRING	1	VBA_FLAGS	
Bit definitions:					
		1... ....		VBA_ENFORCE	"X'80' "
		.1... ....		VBA_AUDIT	"X'40' "
5	(5)	BITSTRING	1	VBA_PAGING_FLAGS	
Bit definitions:					
		1... ....		VBA_PLPAPAGEDSSPEC	"X'80' " PLPA data set specified
		.1... ....		VBA_SCMCANNOTHOLDLPA	"X'40' "

Table 776. Structure VBA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
6	(6)	CHARACTER	2		Use one of these bytes for "version" if we ever expand VBA
8	(8)	ADDRESS	4	VBA_AUDITAREA_ADDR	
12	(C)	ADDRESS	4	VBA_FIRST_GOOD_CX_ADDR	
16	(10)	SIGNED	4	VBA_NUM_GOOD_CX	
20	(14)	SIGNED	4	VBA_NUM_BAD_CX	
24	(18)	ADDRESS	4	VBA_FIRST_BAD_CX_ADDR	
24	(18)	X'C2C140'	0	VBA_ID_CHARS	"C'VBA '"
64	(40)	X'40'	0	VBA_LEN	"*-VBA"

Table 777. Structure VB\_CERTEXTRACT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	VB_CERTEXTRACT	
0	(0)	CHARACTER	4	VB_CX_ID	
4	(4)	ADDRESS	4	VB_CX_NEXTADDR	
8	(8)	CHARACTER	4		For IBM use only
12	(C)	SIGNED	4	VB_CX_NUMSUCCESSFULUSES	
16	(10)	CHARACTER	64	VB_CX_CERTNAME	
80	(50)	CHARACTER	32	VB_CX_CERTFP	
112	(70)	CHARACTER	20	VB_CX_KEYID	Zeroes if bad key ID length
132	(84)	CHARACTER	2		For IBM use only
134	(86)	SIGNED	2	VB_CX_REASON_BAD	
136	(88)	CHARACTER	8	VB_CX_STARTTIME	First 8 bytes of ETOD
144	(90)	CHARACTER	8	VB_CX_EXPIRATIONTIME	First 8 bytes of ETOD
152	(98)	CHARACTER	2		For IBM use only
154	(9A)	CHARACTER	6		
160	(A0)	CHARACTER	80	VB_CX_X	Zeroes if bad key
240	(F0)	CHARACTER	80	VB_CX_Y	Zeroes if bad key
240	(F0)	X'C2C3E7'	0	VB_CX_ID_CHARS	"C'VBCX' "
240	(F0)	X'1'	0	VB_CX_REASON_NOTSTARTED	"1"
240	(F0)	X'2'	0	VB_CX_REASON_EXPIRED	"2"
240	(F0)	X'3'	0	VB_CX_REASON_BADKEY	"3"
240	(F0)	X'4'	0	VB_CX_REASON_BADKEYTYPE	"4"
240	(F0)	X'5'	0	VB_CX_REASON_BADKEYIDLEN	"5"
240	(F0)	X'6'	0	VB_CX_REASON_BADHASHTYPE	"6"
240	(F0)	X'7'	0	VB_CX_REASON_BADHASHLEN	"7"

## Reasons for validation failure

240	(F0)	X'1'	0	VB_VF_NOTSIGNED	"1"
240	(F0)	X'2'	0	VB_VF_DENOTFOUND	"2"
240	(F0)	X'3'	0	VB_VF_DENOTMATCH	"3"
240	(F0)	X'4'	0	VB_VF_SIGNOTFOUND	"4"
240	(F0)	X'5'	0	VB_VF_BADHASHALG	"5"
240	(F0)	X'6'	0	VB_VF_BADSIGALG	"6"
240	(F0)	X'7'	0	VB_VF_BADHASHVAL	"7"

Table 777. Structure VB\_CERTEXTRACT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
240	(F0)	X'8'	0	VB_VF_NOMATCHINGKEYID	"8"
240	(F0)	X'9'	0	VB_VF_SIGVERFAILED	"9"
240	(F0)	X'A'	0	VB_VF_OVERLAYMODULE	"10"
240	(F0)	X'B'	0	VB_VF_BADSIGRECVERSION	"11"
240	(F0)	X'C'	0	VB_VF_MACHLOADERERROR	"12"
240	(F0)	X'140'	0	VB_CERTEXTRACT_LEN	"*-VB_CertExtract"

Table 778. Structure VB\_AUDITAREA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VB_AUDITAREA	
0	(0)	CHARACTER	4	VB_AA_ID	
4	(4)	SIGNED	4	VB_AA_NUMFAILURES	
8	(8)	CHARACTER	4		For IBM use only
12	(C)	SIGNED	4	VB_AA_NUMFAILURES_NODSNE	Could not allocate a DSNE so just counted the failure
16	(10)	CHARACTER	4		For IBM use only
20	(14)	BITSTRING	1	VB_AA_FLAGS0	

Bit definitions:

		1... ....		VB_AA_NOVB	"X'80'" No validated boot possible
		.1.. ....		VB_AA_NOGOODCERTS	"X'40'"
21	(15)	BITSTRING	1	VB_AA_HASHTABLE_DSNE_DIM	Dimension of the array at VB_AA_HashTable_DSNE_Area
22	(16)	CHARACTER	2		Use one of these bytes for "version" if we ever expand AuditArea
24	(18)	SIGNED	4	VB_AA_NUM_DSNEs	Number of DSNE's
28	(1C)	SIGNED	4	VB_AA_NUM_DSNE_MODES	Number of ModE's
32	(20)	SIGNED	4	VB_AA_NUM_SUCCESS_IPL	Number of successful validations for fetch type IPL
36	(24)	SIGNED	4	VB_AA_NUM_SUCCESS_NUC	Number of successful validations for fetch type NUC
40	(28)	SIGNED	4	VB_AA_NUM_SUCCESS_NIP	Number of successful validations for fetch type NIP
44	(2C)	SIGNED	4	VB_AA_NUM_SUCCESS_LPA	Number of successful validations for fetch type LPA
48	(30)	CHARACTER	16		Reserved
64	(40)	CHARACTER	48		Reserved
112	(70)	CHARACTER	1	VB_AA_HASHTABLE_DSNE_AREA(0)	
					Start of array of 4-byte pointers with the dimension in the "_Dim" field. Each pointer, when not 0, points to a chain of areas each mapped by VB_AA_DSNE
112	(70)	X'C2C1C1'	0	VB_AA_ID_CHARS	"C'VBAA'"
112	(70)	X'70'	0	VB_AUDITAREA_LEN	"*-VB_AuditArea"

Table 779. Structure VB\_AA\_DSNE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VB_AA_DSNE	

Table 779. Structure VB\_AA\_DSNE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	8	VB_AA_DSNE_ID	
8	(8)	ADDRESS	4	VB_AA_DSNE_NEXT_ADDR	
12	(C)	CHARACTER	4		For IBM use only
16	(10)	CHARACTER	44	VB_AA_DSNE_DSNAME	A value of "*" indicates that this entry applies regardless of data set name, such as "no certificate entries". A value of zeroes applies only for IEAIPL00 and indicates not known
60	(3C)	CHARACTER	6	VB_AA_DSNE_VOLID	The volume ID, unless DSName is zeroes or *, indicating not known.
66	(42)	CHARACTER	2		Use one of these bytes for "version" if we ever expand AA_DSNE
68	(44)	SIGNED	4	VB_AA_DSNE_NUMFAILURES	
72	(48)	CHARACTER	4		For IBM use only
76	(4C)	SIGNED	4	VB_AA_DSNE_NUMFAILURES_NOMODE	
					Could not allocate a ModE so just counted the failure
80	(50)	CHARACTER	4		For IBM use only
84	(54)	CHARACTER	3		
87	(57)	BITSTRING	1	VB_AA_DSNE_HASHTABLE_MODE_DIM	Dimension of the array at VB_AA_DSNE_HashTable_Mode_Area
88	(58)	CHARACTER	16	VB_AA_DSNE_FAILTIME	First fail time
104	(68)	SIGNED	4	VB_AA_DSNE_NUM_DSNE_MODES	Number of ModE's for this DSNE
108	(6C)	CHARACTER	4		
112	(70)	CHARACTER	1	VB_AA_DSNE_HASHTABLE_MODE_AREA(0)	Start of array of 4-byte pointers with the dimension in the "_Dim" field. Each pointer, when not 0, points to a chain of areas each mapped by VB_AA_DSNE_Mode
112	(70)	X'C2C1C1'	0	VB_AA_DSNE_ID_CHARS_0T03	"C'VBAA'" This is the first 4-byte segment of an 8-byte constant.
112	(70)	X'E2D5C5'	0	VB_AA_DSNE_ID_CHARS_4T07	"C'DSNE'" This is the second 4-byte segment of an 8-byte constant.
112	(70)	X'70'	0	VB_AA_DSNE_LEN	"*-VB_AA_DSNE"

Table 780. Structure VB\_AA\_DSNE\_MODE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VB_AA_DSNE_MODE	
0	(0)	CHARACTER	8	VB_AA_DSNE_MODE_ID	
8	(8)	ADDRESS	4	VB_AA_DSNE_MODE_NEXT_ADDR	
12	(C)	CHARACTER	4		For IBM use only
16	(10)	CHARACTER	8		Use one of these bytes for "version" if we ever expand AA_DSNE_Mode
24	(18)	CHARACTER	8	VB_AA_DSNE_MODE_MODNAME	
32	(20)	BITSTRING	1	VB_AA_DSNE_MODE_FLAGS	

Bit definitions:

1... ....

VB\_AA\_DSNE\_MODE\_FOUNDSIG

"X'80'" Found the signature record for this module

Table 780. Structure VB\_AA\_DSNE\_MODE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
	.1.. ....			VB_AA_DSNE_MODE_FOUNDCERT	"X'40'" Found a certificate with a key ID matching the key ID in the signature record. That certificate will be used to attempt validation (as will any other certificate with an identical key ID)
	..1. ....			VB_AA_DSNE_MODE_HAVEMACHLOADERERRORS	"X'20'" MachLoaderErrors has information
33	(21)	BITSTRING	1	VB_AA_DSNE_MODE_FETCHTYPE	
34	(22)	SIGNED	2	VB_AA_DSNE_MODE_FAILURE_REASON	
36	(24)	SIGNED	4	VB_AA_DSNE_MODE_NUMFAILURES	
40	(28)	CHARACTER	16	VB_AA_DSNE_MODE_FAILTIME	First fail time
56	(38)	CHARACTER	64	VB_AA_DSNE_MODE_CX_CERTNAME	Valid only when FoundCert
120	(78)	CHARACTER	32	VB_AA_DSNE_MODE_CERTFP	Valid only when FoundSig
152	(98)	CHARACTER	20	VB_AA_UNION	
152	(98)	CHARACTER	20	VB_AA_DSNE_MODE_KEYID	Valid only when FoundSig
152	(98)	CHARACTER	6	VB_AA_DSNE_MODE_MACHLOADERERRORS	Errors found by machine loader. Valid only when haveMachLoaderErrors
152	(98)	BITSTRING	4	VB_AA_DSNE_MODE_MLE_SCLAFED	Secure code loading attribute facilities error details
156	(9C)	BITSTRING	2	VB_AA_DSNE_MODE_MLE_IIIEI	IPL Information error indicators
172	(AC)	CHARACTER	4		For IBM use only
176	(B0)	CHARACTER	16	VB_AA_DSNE_MODE_SIGNTIME	Valid only when FoundSig
192	(C0)	CHARACTER	64	VB_AA_DSNE_MODE_DIGEST	The expected hash value. Valid only when FoundSig
192	(C0)	X'C2C1C1'	0	VB_AA_DSNE_MODE_ID_CHARS_0T03	"C'VBAA'" This is the first 4-byte segment of an 8-byte constant.
192	(C0)	X'D6C4C5'	0	VB_AA_DSNE_MODE_ID_CHARS_4T07	"C'MODE'" This is the second 4-byte segment of an 8-byte constant.
192	(C0)	X'0'	0	VB_AA_DSNE_MODE_FETCHTYPE_MIN	"0"
192	(C0)	X'0'	0	VB_AA_DSNE_MODE_FETCHTYPE_IPL	"0"
192	(C0)	X'1'	0	VB_AA_DSNE_MODE_FETCHTYPE_NUC	"1"
192	(C0)	X'2'	0	VB_AA_DSNE_MODE_FETCHTYPE_NIP	"2"
192	(C0)	X'3'	0	VB_AA_DSNE_MODE_FETCHTYPE_LPA	"3"
192	(C0)	X'3'	0	VB_AA_DSNE_MODE_FETCHTYPE_MAX	"3"
192	(C0)	X'100'	0	VB_AA_DSNE_MODE_LEN	"*-VB_AA_DSNE_Mode"

Table 781. Cross Reference for IHAVBA

Name	Offset	Hex Tag
VB_AA_DSNE	0	
VB_AA_DSNE_DSNAME	10	
VB_AA_DSNE_FAILTIME	58	
VB_AA_DSNE_HASHTABLE_MODE_AREA	70	
VB_AA_DSNE_HASHTABLE_MODE_DIM	57	
VB_AA_DSNE_ID	0	
VB_AA_DSNE_ID_CHARS_0T03	70	C2C1C1
VB_AA_DSNE_ID_CHARS_4T07	70	E2D5C5
VB_AA_DSNE_LEN	70	70
VB_AA_DSNE_MODE	0	
VB_AA_DSNE_MODE_CERTFP	78	
VB_AA_DSNE_MODE_CX_CERTNAME	38	
VB_AA_DSNE_MODE_DIGEST	C0	
VB_AA_DSNE_MODE_FAILTIME	28	
VB_AA_DSNE_MODE_FAILURE_REASON	22	
VB_AA_DSNE_MODE_FETCHTYPE	21	
VB_AA_DSNE_MODE_FETCHTYPE_IPL	C0	0
VB_AA_DSNE_MODE_FETCHTYPE_LPA	C0	3
VB_AA_DSNE_MODE_FETCHTYPE_MAX	C0	3
VB_AA_DSNE_MODE_FETCHTYPE_MIN	C0	0
VB_AA_DSNE_MODE_FETCHTYPE_NIP	C0	2
VB_AA_DSNE_MODE_FETCHTYPE_NUC	C0	1
VB_AA_DSNE_MODE_FLAGS	20	
VB_AA_DSNE_MODE_FOUNDCERT	20	40
VB_AA_DSNE_MODE_FOUNDSIG	20	80
VB_AA_DSNE_MODE_HAVEMACHLOADERERRORS	20	20
VB_AA_DSNE_MODE_ID	0	
VB_AA_DSNE_MODE_ID_CHARS_0T03	C0	C2C1C1
VB_AA_DSNE_MODE_ID_CHARS_4T07	C0	D6C4C5
VB_AA_DSNE_MODE_KEYID	98	
VB_AA_DSNE_MODE_LEN	C0	100
VB_AA_DSNE_MODE_MACHLOADERERRORS	98	
VB_AA_DSNE_MODE_MLE_II EI	9C	
VB_AA_DSNE_MODE_MLE_SCLAFED	98	
VB_AA_DSNE_MODE_MODNAME	18	
VB_AA_DSNE_MODE_NEXT_ADDR	8	
VB_AA_DSNE_MODE_NUMFAILURES	24	
VB_AA_DSNE_MODE_SIGNTIME	B0	
VB_AA_DSNE_NEXT_ADDR	8	

Table 781. Cross Reference for IHAVBA (continued)

Name	Offset	Hex Tag
VB_AA_DSNE_NUM_DSNE_MODES	68	
VB_AA_DSNE_NUMFAILURES	44	
VB_AA_DSNE_NUMFAILURES_NOMODE	4C	
VB_AA_DSNE_VOLID	3C	
VB_AA_FLAGS0	14	
VB_AA_HASHTABLE_DSNE_AREA	70	
VB_AA_HASHTABLE_DSNE_DIM	15	
VB_AA_ID	0	
VB_AA_ID_CHARS	70	C2C1C1
VB_AA_NOGOODCERTS	14	40
VB_AA_NOVB	14	80
VB_AA_NUM_DSNE_MODES	1C	
VB_AA_NUM_DSNE_S	18	
VB_AA_NUM_SUCCESS_IPL	20	
VB_AA_NUM_SUCCESS_LPA	2C	
VB_AA_NUM_SUCCESS_NIP	28	
VB_AA_NUM_SUCCESS_NUC	24	
VB_AA_NUMFAILURES	4	
VB_AA_NUMFAILURES_NODSNE	C	
VB_AA_UNION	98	
VB_AUDITAREA	0	
VB_AUDITAREA_LEN	70	70
VB_CERTEXTRACT	0	
VB_CERTEXTRACT_LEN	F0	140
VB_CX_CERTFP	50	
VB_CX_CERTNAME	10	
VB_CX_EXPIRATIONTIME	90	
VB_CX_ID	0	
VB_CX_ID_CHARS	F0	C2C3E7
VB_CX_KEYID	70	
VB_CX_NEXTADDR	4	
VB_CX_NUMSUCCESSFULUSES	C	
VB_CX_REASON_BAD	86	
VB_CX_REASON_BADHASHLEN	F0	7
VB_CX_REASON_BADHASHTYPE	F0	6
VB_CX_REASON_BADKEY	F0	3
VB_CX_REASON_BADKEYIDLEN	F0	5
VB_CX_REASON_BADKEYTYPE	F0	4
VB_CX_REASON_EXPIRED	F0	2



Table 781. Cross Reference for IHAVBA (continued)

Name	Offset	Hex Tag
VB_CX_REASON_NOTSTARTED	F0	1
VB_CX_STARTTIME	88	
VB_CX_X	A0	
VB_CX_Y	F0	
VB_VF_BADHASHALG	F0	5
VB_VF_BADHASHVAL	F0	7
VB_VF_BADSIGALG	F0	6
VB_VF_BADSIGRECVERSION	F0	B
VB_VF_DENOTFOUND	F0	2
VB_VF_DENOTMATCH	F0	3
VB_VF_MACHLOADERERROR	F0	C
VB_VF_NOMATCHINGKEYID	F0	8
VB_VF_NOTSIGNED	F0	1
VB_VF_OVERLAYMODULE	F0	A
VB_VF_SIGNOTFOUND	F0	4
VB_VF_SIGVERFAILED	F0	9
VBA	0	
VBA_AUDIT	4	40
VBA_AUDITAREA_ADDR	8	
VBA_ENFORCE	4	80
VBA_FIRST_BAD_CX_ADDR	18	
VBA_FIRST_GOOD_CX_ADDR	C	
VBA_FLAGS	4	
VBA_ID	0	
VBA_ID_CHARS	18	C2C140
VBA_LEN	40	40
VBA_NUM_BAD_CX	14	
VBA_NUM_GOOD_CX	10	
VBA_PAGING_FLAGS	5	
VBA_PLPAPAGEDSSPEC	5	80
VBA_SCMCANNOTHOLDLPA	5	40

## IHAWEB information

### IHAWEB heading information

**Common name:** Work Element Block  
**Macro ID:** IHAWEB  
**DSECT name:** WEB

**Owning component:** Supervisor Control (SC1C5)

**Eye-catcher ID:** WEB  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: Above 16M line

**Size:** WEB -- X'0080' bytes

**Created by:** IEAVWPM

**Pointed to by:** ASCBCMLW field of the ASCB data area  
ASCBLLWQ field of the ASCB data area  
ASCBLSWQ field of the ASCB data area  
ASCB SAWQ field of the ASCB data area  
ASSBCAPQ field of the ASSB data area  
ASSBRCTW field of the ASSB data area  
ASSBTAWQ field of the ASSB data area  
ASSBWCML field of the ASSB data area  
ASSBWSSS field of the ASSB data area  
ASSBWS3S field of the ASSB data area  
LCCACWEB field of the LCCA data area  
LCCAFWPP field of the LCCA data area  
LCCANWEB field of the LCCA data area  
LCCAPRMW field of the LCCA data area  
LCCAPWEB field of the LCCA data area  
LCCAWUQM field of the LCCA data area  
PWVTPWUQ field of the PWVT data area  
RRRAWEB field of the RRR data area  
STCBWEB field of the STCB data area  
SRBWEB field of the SRB data area  
SVTSWUQ field of the SVT data area  
SVTXFWPP field of the SVTX data area  
WEBSUSPQ  
WEBPOOL  
WEBUNEXT  
WEBUPREV  
WEBWUQP  
WEBEnclaveNextWEB  
WEBEnclavePrevWEB  
WEBClientNextWEB  
WEBClientPrevWEB

**Serialization:** Dependent on the specific field

**Function:** Each dispatchable workunit is represented by a WEB. The WEB is used to locate work to be dispatched.

## IHAWEB mapping

Table 782. Structure WEB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WEB	
0	(0)	CHARACTER	4	WEBWEB	Acronym in EBCDIC- "WEB ".
4	(4)	CHARACTER	4	WEBTYPEWORD	WEB type word. Serialization: Locking the WEB.

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	CHARACTER	2	WEBFLAG1	WEB Flag bytes.
4	(4)	BITSTRING	1	WEBMISCFLGS	Miscellaneous flag byte.
Bit definitions:					
		1... ....		WEBFLGSUM	"X'80'" Summary bit. This bit must be on when any bits are on in WEBFLAG1.
		.1.. ....		WEBSRBACTIV	"X'40'" (S)SRB has been dispatched. It may have been stopped and not yet reset.
		..1. ....		WEBCMLABEND	"X'20'" The Dispatcher must ABEND this workunit. It holds the CML lock of a terminating address space.
		...1 ....		WEBSRBRETURNED	"X'10'" This is an SRB-returned WEB which needs to be removed from the WUQ
		.... 1111		WEBMISCFLGSRSD	"X'0F'" Reserved. Checked by IEAVEGR.
5	(5)	BITSTRING	1	WEBNDFLGS	Nondispatchability flags. All of the flags in this byte indicate some form of nondispatchability.
Bit definitions:					
		1... ....		WEBLCLND	"X'80'" Suspended waiting for a Local lock.
		.1.. ....		WEBCMLND	"X'40'" Suspended waiting for a CML lock.
		..1. ....		WEBCMSND	"X'20'" Suspended waiting for a CMS lock.
		...1 ....		WEBSWAP	"X'10'" Workunit is nondispatchable due to swapout processing
		.... 1...		WEBPAUSED	"X'08'" Workunit is paused. Used only for task WEBs. Might be set for an SRB if testing an SRB that is never to run (e.g., to test its RMTR)
		.... .111		WEBNDFLGSRSD	"X'07'" Reserved. Checked by IEAVEGR.
6	(6)	BITSTRING	1	WEBFLAG2	
Bit definitions:					
		1... ....		WEBZCBP	"X'80'" Work unit for zCBP
		1... ....		WEBIFA	"X'80'" Work unit for IFA
		.1.. ....		WEBFLAG2DIAG1	"X'40'" Diagnostic for IBM use only was WebOnASWUQ
		..1. ....		WEBZIIP100	"X'20'" It is desired that 100% of this work unit's time be spent on a zIIP
		...1 ....		WEBZIIP	"X'10'" Work unit for zIIP
		...1 ....		WEBSUP	"X'10'" Work unit for zIIP
		.... 1...		WEBISFORSRB	"X'08'" This WEB is for some sort of SRB or SSRB.
		.... .1..		WEBGLOBALSRBFIRSTDISPATCH	"X'04'" When on, this WEB represents a global SRB on its 1st dispatch where the global SRB had WEBCMAJOR_Flag WEBCGSRB on.
		.... ..11		WEBFLAG2DIAG2	"X'03'" Reserved, do not use

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
7	(7)	BITSTRING	1	WEBSITE	Workunit type. Serialized by the WEBLOCK. However, may be fetched by disabled routines running under the WEB without the WEBLOCK being held. Routines that fetch WEBSITE without the WEBLOCK being held must be able to tolerate the WEBSITE changing from WEBSITE or WEBSITE to WEBSITE or from any preemptable-class SRB into a nonpreemptable-class SRB due to PurgeDQ processing. A client or enclave SRB is transformed into a preemptable SRB when the respective client or enclave terminates. Note: Obtaining the associated client or enclave WEB Q Lock is an effective way to ensure that WEBSITE or WEBSITE respectively, will not change to WEBSITE. The same holds true for WEBSITE changing to WEBSITE.
8	(8)	CHARACTER	8	WEBLOCKWORD	WEB Lock Doubleword. Serialization: WUQ protocol.
8	(8)	CHARACTER	4	WEBLOCK	WEB Lockword. Serialization: Compare and Swap.
8	(8)	CHARACTER	1	WEBLOCKWORD_BYTE_1	First byte of WEB Lockword. Serialization: Compare and Swap. NOTE: All nonused bits must be zero.
Bit definitions:					
	1... ..			WEBON_FREE_Q	"X'80'" Indicates whether or not this WEB is on the WEB Free Queue. When 1, this WEB is on the WEB Free Queue. Serialization: Compare and Swap.
9	(9)	CHARACTER	1	WEBR009	Reserved. Must be zero.
10	(A)	BITSTRING	2	WEBLOCK_CPUID	Logical CPU ID of the processor which has locked this WEB. When lock is not held, this halfword is zero. Serialization: Compare and Swap.
12	(C)	ADDRESS	4	WEBWUQP	WUQ pointer. Serialization: WUQ protocol.
Bit definitions:					
	1... ..			WEBOFFQ	"X'80'" Indicates whether or not this WEB is off a WUQ. When 1, this WEB is off a WUQ. Serialization: Compare and Swap.
Note, when adding / changing dispatch priority bits, verify the non-RQM and RQM work unit priority bitmask (in WEBCPRTYB_RQMoff and WEBCPRTYB_RQMOn) and the RQM constants for dispatch priorities are still correct with the updates.					
16	(10)	SIGNED	4	WEBCPRTY	Workunit priority. Serialization: locking the WEB and ensuring it is not on a WUQ. It is F(31) so that a PL/X compare will be signed and show the header priority as negative.
16	(10)	CHARACTER	4	WEBCPRTY_UNION	
16	(10)	CHARACTER	4	WEBCPRTYC	Workunit priority (char)
16	(10)	CHARACTER	2	WEBCMAJOR_BYTES	Major priority halfword.
16	(10)	BITSTRING	1	WEBCMAJFLG	Major priority flags.

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Bit definitions:					
		1... ....		WEBCHDR	"X'80'" WUQ Header priority (-1).
		.1.. ....		WEBCGSRB	"X'40'" Global SRB priority.
		..1. ....		WEBCMAJFLGRSVD	"X'20'" Reserved. Checked by IEAVEGR.
		...1 ....		WEBCMAST	"X'10'" Master address space priority.
		.... 11..		WEBCMAJFLGRSVD2	"X'0C'" Reserved. Checked by IEAVEGR.
		.... ..1.		WEBCLOGICALSWAPINPROMOTION	"X'02'" SRM thought RCT might be starved for CPU during logical swap in. Promotion lasts only until next dispatch.
		.... ...1		WEBCMAJFLGRSVD3	"X'01'" Reserved. Checked by IEAVEGR.
17	(11)	BITSTRING	1	WEBCMAJOR	ASCB (Major) priority.
18	(12)	CHARACTER	2	WEBCMINOR_BYTES	Minor priority halfword.
18	(12)	BITSTRING	1	WEBCMINFLG	Minor Priority flags.
Bit definitions:					
		1... ....		WEBCLSRB	"X'80'" Default local SRB Priority. Note this bit is also set for a global SRB.
		.1.. ....		WEBCLOCK	"X'40'" Locally locked priority.
		..1. ....		WEBCMINFLGRSVD	"X'20'" Reserved. Checked by IEAVEGR.
		...1 ....		WEBCMLP	"X'10'" CML lock promotion priority.
		.... 1...		WEBCEXIT	"X'08'" Async exit priority.
		.... .1..		WEBCRCT	"X'04'" RCT priority.
		.... ..1.		WEBCMINOR_NONRQM_WEBCMINOR	"X'02'" When RQM is active, all WEBs that received a minor dispatch priority outside the system through TCB CHAP or on IEAMSCHD are ineligible for RQM. These units of work have a higher priority than the 'rest' of the RQMed work and possibly relative to other minor dispatch priorities. The system cannot know the intentions of external minor dispatch priorities being assigned, so the system always runs the non-RQM work at a higher priority than the RQMed work by turning this WEBCMINOR priority flag bit on. This bit is off when RQM is inactive.
		.... ...1		WEBCMINOR_MINORTSORNOTS	"X'01'" Workunit was interrupted in during a minor task time slice in HD=YES or for a non-time slice reason in any HD state.
19	(13)	BITSTRING	1	WEBCMINOR	TCB (Minor) priority.
20	(14)	ADDRESS	4	WEBHASCBS	Home ASCB address. Serialization: only set during WEB initialization. Can only be referenced when running under the WEB or with the WEB locked.
20	(14)	ADDRESS	4	WEBPOOL	WEB Free Pool pointer. Serialization: locking the WEB (except during WEB initialization.)
24	(18)	ADDRESS	4	WEBUPTR	Work unit address TCB or (S)SRB address. Serialization: only set during initialization. Can only be referenced when running under the WEB or with the WEB locked.

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	SIGNED	2	WEBUHIGH	High order byte of WEBUPTR. Must be zero for WUQ header WEBs.
26	(1A)	SIGNED	2	WEBLOGICAL_CPUID	Logical CPU id of CPU for which this WEB is the WUQ WUQ header. Only valid if WEBTYPE=WEBTWUQH. Serialization: Only set during initialization.
28	(1C)	ADDRESS	4	WEBUNEXT	Address space queue forward pointer. Header: ASCBSAQW or ASSBTAWQ. Serialization: ASCBWQLK.
32	(20)	ADDRESS	4	WEBUPREV	Address space queue backward pointer. Header: ASCBSAQW or ASSBTAWQ. Serialization: ASCBWQLK.
Bit definitions:					
		1... ....		WEBOFF_AWQ	"X'80'" Indicates to global recovery that this WEB does not belong on an address space related queue.
36	(24)	ADDRESS	4	WEBSUSPQ	Suspend queue pointer. The address of the next WEB on a lock suspend queue. Serialization: functional - Either executing under the workunit or local lock is held.
36	(24)	BITSTRING	1	WEBSUSPQ_BYTE_1	First byte of suspend queue pointer. Used to manipulate high order bit of suspend queue forward link.
Bit definitions:					
		1... ....		WEBSUSPQ_HIGH_BIT	"X'80'" Used to manipulate high order bit of suspend queue forward link.
37	(25)	CHARACTER	3		
40	(28)	ADDRESS	4	WEBLSQP	Address of CMS lock (valid only when WEBCMSND is set) OR address of ASCB whose CML lock is being requested (valid only when WEBCMLND is set.) Serialization: Locking the WEB.
44	(2C)	ADDRESS	4	WEBCAPQ	Capped WEB forward pointer. The address of the next WEB on the home address space cap queue. Serialization: Dispatcher active and compare and swap to enqueue. Global intersect to dequeue. Global Recovery, which is serialized by a SIGP to all processors, may also dequeue.
Bit definitions:					
		1... ....		WEBONCAPQ	"X'80'" When this bit is on, the WEB is on a cap queue. Serialization: For SRBs, global intersect. For tasks, the WEB lock.
48	(30)	SIGNED	4	WEBMISCWORD	Word containing MISCFLAGS
48	(30)	CHARACTER	1	WEBR030	Reserved
49	(31)	BITSTRING	1	WEBMISCFLAGS	Miscellaneous indicators byte. Serialization is the WEB lock.
Bit definitions:					
		1... ....		WEBENCRDYCOUNT	"X'80'" Indicates that the current work unit is included in the home address space's enclave ready count (ASCBTCBE).

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1... ....		WEBENCLLSUSQCOUNT	"X'40'" Indicates that the current work unit is included in the home address space's enclave local lock suspend queue count (ASCBLSQE)
		..1. ....		WEBSYNCH	"X'20'" Indicates that there is some other process suspended waiting for the SRB to complete, and that the SSRB that for this workunit is being used as a workarea for IEAVSCHED.
		...1 ....		WEBRESUMETASKONSUSPEND	"X'10'" Only on when WEBSynch is on too. Indicates that the suspended process waiting for this SRB must be resumed if the SRB is suspended.
Note, the WEBQUEUEDAHEA values are only used when the RQM is off.					
		.... .1..		WEBQUEUEDAHEA4	"X'04'" A WEB of higher priority for this address space has been added in from of this one
		.... ..1.		WEBQUEUEDAHEA2	"X'02'" A WEB of higher priority for this address space has been added in from of this one
		.... ...1		WEBQUEUEDAHEAD	"X'01'" A WEB of higher priority for this address space has been added in from of this one
50	(32)	SIGNED	2	WEBPRIORITYID	AscbASID or EncbPseudoID for the appropriate ASCB/ENCB
Bit definitions:					
		1... ....		WEBPRIORITYIDISFORENCLAVE	"X'80'" If on, EncbPseudoID
52	(34)	CHARACTER	12	WEBUNION	
52	(34)	CHARACTER	12	WEBACCOUNTINGBLOCKINFO	These are the names used in the IPCS model. They are "common" to the other names in the union.
52	(34)	ADDRESS	4	WEBACCTBLKADDR	Address of the accounting block
56	(38)	ADDRESS	4	WEBACCTBLKNEXTWEB	Address of the next WEB on this chain
60	(3C)	ADDRESS	4	WEBACCTBLKPREVWEB	Address of the prev WEB on this chain
52	(34)	CHARACTER	12	WEBENCLAVEINFO	
52	(34)	ADDRESS	4	WEBENCLAVEADDR	Address of this workunit's ENCB, or 0. This value can only be used as an enclave address if the WEBTYPE is WEBTESRB or WEBTETCB. Serialization: WEB lock.
56	(38)	ADDRESS	4	WEBENCLAVENEXTWEB	Enclave queue pointer. The address of the next WEB associated with this enclave, or zero. This value can only be used if the WEBTYPE is WEBTESRB. Serialization: Enclave WEBQ lock.
60	(3C)	ADDRESS	4	WEBENCLAVEPREVWEB	Enclave queue pointer. The address of the previous WEB associated with this enclave, or zero. This value can only be used if the WEBTYPE is WEBTESRB. Serialization: Enclave WEBQ lock.
Bit definitions:					
		1... ....		WEBOFF_EWQ	"X'80'" Indicates to global recovery that this WEB does not belong on an enclave related queue. Serialization: Enclave WEBQ lock.
52	(34)	CHARACTER	12	WEBCLIENTINFO	

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
52	(34)	ADDRESS	4	WEBCLIENTASCBADDR	Address of the ASCB from which this workunit's priority is derived and which is charged for the CPU time consumed. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.
56	(38)	ADDRESS	4	WEBCLIENTNEXTWEB	Client queue pointer. The address of the next Client WEB associated with the ASCB whose address is in WebClientAscbAddr or zero. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.
60	(3C)	ADDRESS	4	WEBCLIENTPREVWEB	Client queue pointer. The address of the prev Client WEB associated with the ASCB whose address is in WebClientAscbAddr or zero. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.
Bit definitions:					
		1... ....		WEBOFF_CWQ	"X'80'" Indicates to global recovery that this WEB does not belong on a client ASCB related queue.
64	(40)	ADDRESS	4	WEBNATIVECONTEXTPTTR	Address of this work unit's Native Context. Serialization:
68	(44)	ADDRESS	4	WEBPRIVATECONTEXTPTTR	Address of this work unit's Private Context Serialization:
72	(48)	ADDRESS	4	WEB_CP_AFFINITY_NODE	Node to use for CP queuing
Bit definitions:					
		1... ....		WEB_ENTITLE_NOMINEE	"X'80'" Entitle nominee
76	(4C)	ADDRESS	4	WEB_ZCBP_AFFINITY_NODE	Node to use for zCBP queuing
76	(4C)	ADDRESS	4	WEB_IFA_AFFINITY_NODE	Node to use for IFA queuing
80	(50)	ADDRESS	4	WEBCURRENT_WUQ	WUQ address, when queued
84	(54)	SIGNED	2	WEBDIAG1	
86	(56)	SIGNED	2	WEBPROMOTION_TEMPASID	ASID to use with temporary promotion
88	(58)	SIGNED	4	WEBCSWORD1	Used to perform CS when updating WebClFlags
88	(58)	CHARACTER	2	WEBDIAG3	Diagnostic
90	(5A)	BITSTRING	1	WEBCLFLAGS	These flags are cleared when a WEB is allocated and are serialized by CS because some modules which set/reset them lock the WEB and others are running under the unit of work
Bit definitions:					
		1... ....		WEBSRBTERM	"X'80'" This preemptable SRB was the target of a CALLRTM TYPE=SRBTERM and is to be terminated at the next opportunity
		.1.. ....		WEBSRBTERMINPROGRESS	"X'40'" WebSrbTerm has been honored and termination of this preemptable SRB has been initiated. This bit is turned off by RTM when it processes an abending SRB



Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		WEBFRRINCONTROL	"X'20'" Turned on by RTM1 while an FRR is in control for an SRB, used to protect FRRs from SRBTERMs. The name does not have 'SRB' in it in case we ever want to also use this indicator for tasks
91	(5B)	BITSTRING	1	WEB_RQM_WEBCMAJOR_DP_SEQNUM	The subdivided RQM WEBCMAJOR dispatch priority sequence number. When RQM is active, all WEBs have this sequence number set.
92	(5C)	BITSTRING	1	WEB_NONRQM_WEBCMINOR_DP	The non-RQMed minor dispatch priority set from a TCB / WEB CHAP, an SRB scheduled with a minor dispatch priority, or some other reason besides RQM.
93	(5D)	BITSTRING	1	WEB_SHORTMINHDYESLOCKPROMOTE	In HD=YES, number of short minors remaining which lock promote can occur for. This field is only meaningful when WebPromotion_HDYesLockPromote is on
94	(5E)	CHARACTER	2	WEBTSC	WEB's timeslice counts
94	(5E)	BITSTRING	1	WEBCTSM	Current timeslice multiplier
95	(5F)	BITSTRING	1	WEBCTSC	Current timeslice count
Bit definitions:					
		1... ....		WEBFDSP	"X'80'" Indicates first dispatch, this bit is on from dispatch until first minor
96	(60)	CHARACTER	1	WEB_NORMALWEBCMAJOR	The work unit normal dispatch priority without promotion
97	(61)	CHARACTER	1	WEBR061	Reserved
98	(62)	BITSTRING	1	WEBHELP_WEIGHT	Weight to use for this element during needs help processing
99	(63)	BITSTRING	1	WEBPROMOTION_SRBSPRIORITY	When WebPromotion_SRBsActive or WebPromotion_Lock are/is 1, the major priority to be used for this WEB. Serialization: WEB lock
100	(64)	ADDRESS	4	WEB_ZIIP_AFFINITY_NODE	Node to use for zIIP queuing
100	(64)	ADDRESS	4	WEB_SUP_AFFINITY_NODE	Node to use for SUP queuing
104	(68)	BITSTRING	4	WEBPROMOTION_CONTROL	When non-0 the highest of the active promotion priorities will be used when queuing the WEB to the WUQ if it is higher then the major priority that would normally be used
104	(68)	BITSTRING	1	WEBPROMOTION_FLAGS	WEB promotion flags in addition to those in WebPromotion_Misc. Serialization: Locking the WEB.
Bit definitions:					
		1111 1...		WEBPROMOTIONRSVD1	"X'F8'" Reserved, checked in IEAVECBV
		.... .1..		WEBPROMOTION_HDYESLOCKPROMOTE	"X'04'" 1 when a WEB was promoted in HD=YES for holding a local lock, 0 otherwise. When this bit is on, it overrides types of promotion because this bit results in the work unit getting the highest possible promotion priority (FFx).

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		WEBPROMOTION_LOCK	"X'02'" 1 when this workunit holds a local lock and an SRB which requested the lock had been given too many SRBs promotion. NOTE: This flag is not used when a promoted SRB suspends for a CMS lock. in that situation, the promoted priority is used by standard CMS Promotion processing.
		.... ...1		WEBPROMOTION_SRBSACTIVE	"X'01'" 1 when this WEB has been promoted to alleviate a flood of SRBs (too many SRBs).
105	(69)	CHARACTER	3	WEBPROMOTION_SLICECOUNT	Priority override minor timeslice counts.
105	(69)	BITSTRING	1	WEBPROMOTION_TEMPCOUNT	Count of timeslices for temporary promotion to be active
106	(6A)	BITSTRING	1	WEBPROMOTION_MISC	Miscellaneous
Bit definitions:					
		1111 11..		WEBPROMOTION_MISC_RSVD	"X'FC'" Reserved, checked for 0 by IEAVECBV
		.... ..1.		WEBPROMOTION_DEFERSWITCHFROM	"X'02'" 1 when deferred switch from zAAP in effect, 0 otherwise. Mutually exclusive with TrickleActive so not a problem to reset without CS
		.... ...1		WEBPROMOTION_TRICKLEACTIVE	"X'01'" 1 when trickle promotion is active, 0 otherwise. Mutually exclusive with DeferSwitchFrom so not a problem to reset without CS
107	(6B)	BITSTRING	1	WEBPROMOTIONRSVD2	Reserved, checked in IEAVECBV
108	(6C)	SIGNED	4	WEB_REMAINING_TRICKLE_TIME	Remaining time for trickle or deferred switch from zAAP
112	(70)	CHARACTER	8	WEB_TOD	A TOD associated with the WEB
112	(70)	CHARACTER	8	WEB_TOD_LASTTIMEWUQADDED	The last time this WEB was WUQ added. Serialization: WEB lock.
112	(70)	SIGNED	4	WEB_TOD_LASTTIMEWUQADDEDH	
116	(74)	SIGNED	4	WEB_TOD_LASTTIMEWUQADDEDL	
112	(70)	CHARACTER	8	WEB_TOD_SUSPENDED_FOR_LOCK	The TOD when a WEB was suspended for a local/CML/CMS lock. Serialization: WEB lock.
112	(70)	CHARACTER	7		
119	(77)	CHARACTER	1	WEB_TOD_SUSPENDED_FOR_LOCK_LOW_BYTE	
Bit definitions:					
		.... ...1		WEB_OTHER_WEB_ALREADY_SUSPENDED	"X'01'" Indicator whether a different WEB was already suspended for the same lock.
112	(70)	CHARACTER	8	WEB_TOD_UNDISPATCHED	The TOD when a WEB last surrendered CPU demand voluntarily (waited, suspended, paused) or involuntarily (preempted for higher priority work) Serialization: TCBACTIV/WEBSRBACTIV or WEB lock.
120	(78)	SIGNED	2	WEB_LASTLOGCOREID	Last logical CORE ID that dispatched this work unit. Serialization: WEB Lock
122	(7A)	CHARACTER	2	WEB_DIAG07A	Diagnostic area for IBM use only

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
124	(7C)	SIGNED	2	WEB_CORE_WAIT_SEQNUM	Wait sequence number of the CORE that last dispatched this work unit. Serialization: WEB Lock
126	(7E)	CHARACTER	2	WEBR07E	Reserved
128	(80)	CHARACTER	1	WEBEND(0)	End of WEB.
RQM Dispatch Priority Mask Constants.					
128	(80)	BITSTRING	0	WEBCMINOR_MASK_RQM_DPS_HW	"X'03FF'" Mask of WEBCMINOR half word dispatch priorities managed by RQM when RQM is active. The following WEBCMINOR fields are managed by RQM when it is active: WEBCMinor_NonRQM_WEBCMINOR, WebCMinor_MinorTSOrNoTS, WEBCMINOR
128	(80)	BITSTRING	0	WEBCMINOR_MASK_NONRQM_DPS_HW	"X'FC00'" Mask of WEBCMINOR half word dispatch priorities not managed by RQM when RQM is active.
128	(80)	X'3FF'	0	WEBCMINOR_CONST_RQM_DPS_HW	"1023" Constant analog for assembler
128	(80)	X'FFFC00'	0	WEBCMINOR_CONST_NONRQM_DPS_HW	"-1024" Constant analog for assembler
128	(80)	X'4'	0	WEBTSRB	"4" WEB represents an SRB.
128	(80)	X'8'	0	WEBTMSRB	"8" WEB represents a managed SRB (Global or Local created by IEAMSCHD). If also FULLXM, type FSRB is used instead of MSRB.
128	(80)	X'C'	0	WEBTSSRB	"12" WEB represents an SSRB.
128	(80)	X'10'	0	WEBTESRB	"16" WEB represents an Enclave SRB. The WEB's priority is derived from the Enclave. All enclave SRBs are preemptable-class.
128	(80)	X'14'	0	WEBTPSRB	"20" WEB represents a Preemptable SRB. All Preemptable SRBs are of the preemptable-class.
128	(80)	X'18'	0	WEBTFSRB	"24" WEB represents an SRB scheduled with the FULLXM keyword. If also Preemptable, enclaved, or client, that type is used instead of FSRB.
128	(80)	X'1C'	0	WEBTTCB	"28" WEB represents a TCB.
128	(80)	X'20'	0	WEBTEXIT	"32" WEB represents an Async Exit.
128	(80)	X'24'	0	WEBTCMLP	"36" WEB represents a CML Promotion.
128	(80)	X'28'	0	WEBTWUQH	"40" WEB represents a WUQ header.
128	(80)	X'2C'	0	WEBTFREE	"44" WEB is free.
128	(80)	X'30'	0	WEBTRSRB	"48" WEB represents a previously executing SRB which has been suspended by SUSPEND with token or by PAUSE or TRANSFER.
128	(80)	X'34'	0	WEBTCSRB	"52" WEB represents a client SRB. The workunit's priority is derived from an address space different from its home address space. All Client SRBs are preemptable-class.
128	(80)	X'38'	0	WEBTETCB	"56" WEB represents an enclave TCB. The WEB's priority is derived from the enclave.
128	(80)	X'3C'	0	WEBTCMSP	"60" WEB represents a CMS Promotion.
128	(80)	X'0'	0	WEBTERROR	"0" WEB is in error

Table 782. Structure WEB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
128	(80)	X'80'	0	WEBENCRDYCOUNTBITCONST	"128" Bit constant for bit position WEBEncRdyCount. Used by assembler macro generated in PL/X code.
128	(80)	X'40'	0	WEBENCLLSUSQCOUNTBITCONST	"64" Bit constant for bit position WEBEncLLSusQCount. Used by assembler macro generated in PL/X code.
128	(80)	X'80'	0	WEBLCLNDBITCONST	"128" Bit constant for bit position WEBLCLND. Used by assembler macro generated in PL/X code.
128	(80)	X'40'	0	WEBCMLNDBITCONST	"64" Bit constant for bit position WEBCMLND. Used by assembler macro generated in PL/X code.
128	(80)	X'C5C240'	0	WEBWEBCHARS	"C'WEB '" Acronym
128	(80)	X'E6C5C2'	0	ERRORWEBWEBCHARS	"C'EWEB'" Acronym
128	(80)	X'80'	0	WEB_LEN	"*-WEB"

Table 783. Cross Reference for IHAWEB

Name	Offset	Hex	Tag
ERRORWEBWEBCHARS	80	E6C5C2	
WEB	0		
WEB_CORE_WAIT_SEQNUM	7C		
WEB_CP_AFFINITY_NODE	48		
WEB_DIAG07A	7A		
WEB_ENTITLE_NOMINEE	48		80
WEB_IFA_AFFINITY_NODE	4C		
WEB_LASTLOGCOREID	78		
WEB_LEN	80		80
WEB_NONRQM_WEBCMINOR_DP	5C		
WEB_NORMALWEBCMAJOR	60		
WEB_OTHER_WEB_ALREADY_SUSPENDED	77		1
WEB_REMAINING_TRICKLE_TIME	6C		
WEB_RQM_WEBCMAJOR_DP_SEQNUM	5B		
WEB_SHORTMINHDYESLOCKPROMOTE	5D		
WEB_SUP_AFFINITY_NODE	64		
WEB_TOD	70		
WEB_TOD_LASTTIMWUQADDED	70		
WEB_TOD_LASTTIMWUQADDEDH	70		
WEB_TOD_LASTTIMWUQADDEDL	74		
WEB_TOD_SUSPENDED_FOR_LOCK	70		
WEB_TOD_SUSPENDED_FOR_LOCK_LOW_BYTE	77		
WEB_TOD_UNDISPATCHED	70		
WEB_ZCBP_AFFINITY_NODE	4C		
WEB_ZIIP_AFFINITY_NODE	64		
WEBACCOUNTINGBLOCKINFO	34		

Table 783. Cross Reference for IHAWEB (continued)

Name	Offset	Hex Tag
WEBACCTBLKADDR	34	
WEBACCTBLKNEXTWEB	38	
WEBACCTBLKPREVWEB	3C	
WEBCAPQ	2C	
WEBCMLP	12	10
WEBCEXIT	12	8
WEBCGSRB	10	40
WEBCHDR	10	80
WEBCLFLAGS	5A	
WEBCLIENTASCBADDR	34	
WEBCLIENTINFO	34	
WEBCLIENTNEXTWEB	38	
WEBCLIENTPREVWEB	3C	
WEBCLLOCK	12	40
WEBCLOGICALSWAPINPROMOTION	10	2
WEBCLSRB	12	80
WEBCMAJFLG	10	
WEBCMAJFLGRSVD	10	20
WEBCMAJFLGRSVD2	10	C
WEBCMAJFLGRSVD3	10	1
WEBCMAJOR	11	
WEBCMAJOR_BYTES	10	
WEBCMAST	10	10
WEBCMINFLG	12	
WEBCMINFLGRSVD	12	20
WEBCMINOR	13	
WEBCMINOR_BYTES	12	
WEBCMINOR_CONST_NONRQM_DPS_HW	80	FFFC00
WEBCMINOR_CONST_RQM_DPS_HW	80	3FF
WEBCMINOR_MASK_NONRQM_DPS_HW	80	FC00
WEBCMINOR_MASK_RQM_DPS_HW	80	3FF
WEBCMINOR_MINORTSORNOTS	12	1
WEBCMINOR_NONRQM_WEBCMINOR	12	2
WEBCMLABEND	4	20
WEBCMLND	5	40
WEBCMLNDBITCONST	80	40
WEBCMSND	5	20
WEBCPRTY	10	
WEBCPRTY_UNION	10	

Table 783. Cross Reference for IHAWEB (continued)

Name	Offset	Hex Tag
WEBCPRTYC	10	
WEBCRCT	12	4
WEBCSWORD1	58	
WEBCTSC	5F	
WEBCTSM	5E	
WEBCURRENT_WUQ	50	
WEBDIAG1	54	
WEBDIAG3	58	
WEBENCLAVEADDR	34	
WEBENCLAVEINFO	34	
WEBENCLAVENEXTWEB	38	
WEBENCLAVEPREVWEB	3C	
WEBENCLLSUSQCOUNT	31	40
WEBENCLLSUSQCOUNTBITCONST	80	40
WEBENCRDYCOUNT	31	80
WEBENCRDYCOUNTBITCONST	80	80
WEBEND	80	
WEBFDSP	5F	80
WEBFLAG1	4	
WEBFLAG2	6	
WEBFLAG2DIAG1	6	40
WEBFLAG2DIAG2	6	3
WEBFLGSUM	4	80
WEBFRRINCONTROL	5A	20
WEBGLOBALSRBFIRSTDISPATCH	6	4
WEBHASCB	14	
WEBHELP_WEIGHT	62	
WEBIFA	6	80
WEBISFORSRB	6	8
WEBLCLND	5	80
WEBLCLNDBITCONST	80	80
WEBLOCK	8	
WEBLOCK_CPUID	A	
WEBLOCKDWORD	8	
WEBLOCKWORD_BYTE_1	8	
WEBLOGICAL_CPUID	1A	
WEBLSQP	28	
WEBMISCFLAGS	31	
WEBMISCFLGS	4	

Table 783. Cross Reference for IHAWEB (continued)

Name	Offset	Hex Tag
WEBMISCFLGSRSD	4	F
WEBMISCWORD	30	
WEBNATIVECONTEXTPTR	40	
WEBNDFLGS	5	
WEBNDFLGSRSD	5	7
WEBOFF_AWQ	20	80
WEBOFF_CWQ	3C	80
WEBOFF_EWQ	3C	80
WEBOFFQ	C	80
WEBON_FREE_Q	8	80
WEBONCAPQ	2C	80
WEBPAUSED	5	8
WEBPOOL	14	
WEBPRIORITYID	32	
WEBPRIORITYIDISFORENCLAVE	32	80
WEBPRIVATECONTEXTPTR	44	
WEBPROMOTION_CONTROL	68	
WEBPROMOTION_DEFERSWITCHFROM	6A	2
WEBPROMOTION_FLAGS	68	
WEBPROMOTION_HDYESLOCKPROMOTE	68	4
WEBPROMOTION_LOCK	68	2
WEBPROMOTION_MISC	6A	
WEBPROMOTION_MISC_RSVD	6A	FC
WEBPROMOTION_SLICECOUNT	69	
WEBPROMOTION_SRBSACTIVE	68	1
WEBPROMOTION_SR BSPRIORITY	63	
WEBPROMOTION_TEMPASID	56	
WEBPROMOTION_TEMPCOUNT	69	
WEBPROMOTION_TRICKLEACTIVE	6A	1
WEBPROMOTIONRSVD1	68	F8
WEBPROMOTIONRSVD2	6B	
WEBQUEUEDAHEAD	31	1
WEBQUEUEDAHEA2	31	2
WEBQUEUEDAHEA4	31	4
WEBRESUMETASKONSUSPEND	31	10
WEBR009	9	
WEBR030	30	
WEBR061	61	
WEBR07E	7E	

Table 783. Cross Reference for IHAWEB (continued)

Name	Offset	Hex Tag
WEBSRBACTIV	4	40
WEBSRBRETURNED	4	10
WEBSRBTERM	5A	80
WEBSRBTERMINPROGRESS	5A	40
WEBSUP	6	10
WEBSUSPQ	24	
WEBSUSPQ_BYTE_1	24	
WEBSUSPQ_HIGH_BIT	24	80
WEBSWAP	5	10
WEBSYNCH	31	20
WEBTCMLP	80	24
WEBTCMSP	80	3C
WEBTCSRB	80	34
WEBTERROR	80	0
WEBTESRB	80	10
WEBTETCB	80	38
WEBTEXTIT	80	20
WEBTFREE	80	2C
WEBTFSRB	80	18
WEBTMSRB	80	8
WEBTPSRB	80	14
WEBTRSRB	80	30
WEBTSC	5E	
WEBTSRB	80	4
WEBTSSRB	80	C
WEBTTCB	80	1C
WEBTWUQH	80	28
WEBTYPE	7	
WEBTYPEWORD	4	
WEBUHIGH	18	
WEBUNEXT	1C	
WEBUNION	34	
WEBUPREV	20	
WEBUPTR	18	
WEBWEB	0	
WEBWEBCHARS	80	C5C240
WEBWUQP	C	
WEBZCBP	6	80
WEBZIIP	6	10



Table 783. Cross Reference for IHAWEB (continued)

Name	Offset	Hex Tag
WEBZIIP100	6	20

## IHAWEE information

### IHAWEE heading information

<b>Common name:</b>	WEB Extent Element
<b>Macro ID:</b>	IHAWEE
<b>DSECT name:</b>	WEE
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	WEE Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245, fixed ESQA Key: 0 Residency: Above 16M line
<b>Size:</b>	WEEWEBSIZE bytes
<b>Created by:</b>	IEAVWPM
<b>Pointed to by:</b>	SVTWEEF field of the SVT data area SVTXWEEL field of the SVTX data area SVT_WUQH_WEE_Header field of the SVTX data area SVTX_WUQH_WEE_Trailer field of the SVTX data area WEENEXT WEEPREV
<b>Serialization:</b>	Global Recovery Protocol
<b>Function:</b>	The WEE is a new control block which is used to keep track of storage allocated for WEBs.

### IHAWEE mapping

Table 784. Structure WEE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WEE	
0	(0)	CHARACTER	4	WEEWEE	Acronym in EBCDIC- "WEE ".
4	(4)	SIGNED	4	WEECOUNT	Number of WEBs in the Extent.
8	(8)	ADDRESS	4	WEENEXT	Address of the next WEE on the WEB Extent Element Queue.
12	(C)	ADDRESS	4	WEEPREV	Address of the previous WEE on the WEB Extent Element Queue.
16	(10)	SIGNED	2	WEEWEBSIZE	The size of WEBs in this WEE
18	(12)	BITSTRING	110	WEER012	Reserved.
128	(80)	DBL WORD	8	WEEEND(0)	- End of WEE. Is at least 128 bytes 128 bytes long
128	(80)	DBL WORD	8	WEEWEBS(0)	The WEBs in this Extent.

Table 784. Structure WEE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
128	(80)	DBL WORD	8	WEEWUQHWEBS(0)	The WEBS in this extent, if it is for a WUQ

Table 785. Cross Reference for IHAWEE

Name	Offset	Hex Tag
WEE	0	
WEECOUNT	4	
WEEEND	80	
WEENEXT	8	
WEEPREV	C	
WEER012	12	
WEEWEBS	80	
WEEWEBSIZE	10	
WEEWEE	0	
WEEWUQHWEBS	80	

## IHAWUQ information

### IHAWUQ heading information

**Common name:** Work Unit Queue Header

**Macro ID:** IHAWUQ

**DSECT name:** WUQ

**Owning component:** Supervisor Control (SC1C5)

**Eye-catcher ID:** WEB  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: Above 16M line

**Size:** WUQLOCKANDQUEUE -- X'0008' bytes  
WUQ -- X'0200' bytes

**Created by:** IEAVWPM

**Pointed to by:** AWUQ\_WUQ\_Address field of the AWUQ data area  
LCCAWUQM field of the LCCA data area  
PWVTPWUQ field of the PWVT data area  
SVTSWUQ field of the SVT data area  
SVTASWUQ field of the SVT data area  
WEBWUQP

**Serialization:** Dependent on the specific field

**Function:**

Each work queue is represented by a WUQ WEB. The WUQ is used to locate work to be dispatched and to contain statistics unique to the work queue.

**IHAWUQ mapping**

Table 786. Structure WUQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WUQ	
0	(0)	CHARACTER	16	WUQHEADER_DATA	
0	(0)	CHARACTER	4	WUQWEB	Acronym in EBCDIC- "WEB ".
4	(4)	CHARACTER	4	WUQTYPEWORD	WEB type word. Serialization: Locking the WUQ.
4	(4)	CHARACTER	2	WUQFLAG1	WUQ Flag bytes. Not used.
6	(6)	CHARACTER	1	WUQFLAG2	WUQ Flag bytes.
6	(6)	BITSTRING	1	WUQFLAG2RSVD	Reserved bits, checked by IEAVECBV
7	(7)	BITSTRING	1	WUQTYPE	Work unit queue type. Never changed once a WUQ is created
8	(8)	CHARACTER	8	WUQANLOCKANDQUEUE	WUQ affinity node lock and queue Serialization: WUQ protocol. WUQ affinity node lock and queue Serialization: WUQ protocol.
16	(10)	SIGNED	4	WUQCPRTY	Workunit priority. Serialization: locking the WUQ and ensuring it is not on a WUQ. It is F(31) so that a PL/X compare will be signed and show the header priority as negative.

## Bit definitions:

		1... ....		WUQCHDR	"X'80'" WUQ Header priority (-1).
20	(14)	ADDRESS	4	WUQAWUQ	AWUQ entry address if WUQLOGICAL_CPUID is 0. Serialization: only set during WEB initialization.
24	(18)	CHARACTER	488	WUQDATA	Area cleared when the WUQ is allocated
24	(18)	SIGNED	2	WUQAWUQ_INDEX	Index into the AWUQ if WUQLOGICAL_CPUID is 0. Serialization: Only set during initialization.
26	(1A)	SIGNED	2	WUQLOGICAL_CPUID	Logical CPU id of CPU for which this WEB is the WUQ PWUQ header. Serialization: Only set during initialization.
28	(1C)	SIGNED	2	WUQHELP_LIMIT	WUQ queue depth limit. When the number of queued WEBs is greater than this value multiplied by the number of non-waiting CPUs in the WUQ node help will be requested. Serialization: SRM lock.
30	(1E)	SIGNED	2	WUQLAST_SIGP	Last CPU in the WUQ node that was signalled out of a wait. Serialization: None.
32	(20)	CHARACTER	4	WUQR020	Reserved, was WUQWP_SIGP_COUNT
36	(24)	CHARACTER	4	WUQR024	Reserved, WUQCPU_Count moved into WUQCPU_Mask_IsA
40	(28)	CHARACTER	8	WUQR028	Reserved
48	(30)	SIGNED	4	WUQWTSS	Short wait time for this WUQ. Serialization: SRM lock.
52	(34)	SIGNED	4	WUQCPU_ACTIVE_TIME	Last time a processor entered wait or was signalled awake.

Table 786. Structure WUQ (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
56	(38)	SIGNED	8	WUQFOREIGN_CPU_TIME	CPU time by priority bucket for work executed on processor not assigned to this WUQ. Serialization: Compare and swap.
88	(58)	SIGNED	2	WUQHELP_FLAGS	Need help flags Ownership: Supervisor Serialization: None
88	(58)	BITSTRING	1	WUQHELP_FLAG1	first set of flags
Bit definitions:					
		1... ....		WUQHELP_NEEDED	"X'80'" This WUQ needs help
89	(59)	BITSTRING	1	WUQHELP_FLAG2	second set of flags
Bit definitions:					
		1... ....		WUQHELP_FLAG2HASDEEPQUEUE	"X'80'" When on, determination found this WUQ has a deep queue. When off, this WUQ has a shallow queue. This bit is the most recent state whether the WUQ is deep or shallow.
90	(5A)	BITSTRING	1	WUQ_BOOK_CROSSING_INDEX	The index into the help node array for this affinity node, when book crossing occurred. What this means is that every helper nodes before this index belong to the same book. Every helper nodes including and after this index are in a different book from the current affinity node. The valid values for this field are 0 to 64. The value 0 indicates that there is no book crossing, i.e. all helper nodes are in the same book.
91	(5B)	BITSTRING	1	WUQ_NEEDHELP_PRIORITY_LEVEL	The priority level at which this node is overloaded with cumulative work. Another meaning of this field is the priority level at which this node should be helped. The priority levels are listed in the AWUQ
92	(5C)	BITSTRING	1	WUQCLASSPRIORITY	WUQ class priority SWUQ has the highest priority SSWUQ has the next highest priority. ASWUQ has the lowest priority. Refer to equates beginning WUQClassPriority_
93	(5D)	BITSTRING	1	WUQR05D	Reserved. Was WUQ_NeedHelp_Dispatch_Priority
94	(5E)	SIGNED	2	WUQPROCCLASS	Indicates the class of processor of this WUQ. It corresponds to an offset into the WUQ array. Possible values are defined by equates in IHAPSA beginning with PsaProcClass_
94	(5E)	SIGNED	2	WUQ_BYLPAR_PROCCCLASS	
94	(5E)	BITSTRING	1	WUQPROCCLASS_BYTE0	
94	(5E)	BITSTRING	1	WUQ_BYLPAR_PROCCCLASS_BYTE0	
95	(5F)	BITSTRING	1	WUQPROCCLASS_BYTE1	
95	(5F)	BITSTRING	1	WUQ_BYLPAR_PROCCCLASS_BYTE1	
96	(60)	ADDRESS	4	WUQSPECIFIC_HELP_LIST	Address of list of affinity nodes that this affinity node may request specific help from. Disablement is required when referencing the list. AWUQ_Help_Nodes defines the format of this list.

Table 786. Structure WUQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
100	(64)	ADDRESS	4	WUQGENERIC_HELP_LIST	Address of list of affinity nodes that this affinity node may request specific help from. Disablement is required when referencing the list. AWUQ_Help_Nodes defines the format of this list.
104	(68)	CHARACTER	8	WUQR068	Reserved
112	(70)	SIGNED	4	WUQLAST_RECALC_TIME	Last time recalc was done for this node This field contains the TOD time when last need help recalculation was done. Because the recalculation is done many times within a second, this field only needs to be 4 bytes long. The purpose of this field is to prevent multiple CPUs wasting cycles doing recalculation at the same time. However, this does not mean the code is serialized by this field, because hipervisor CPU preemption could cause multiple CPUs to be in the recalculation logic at the same time. Ownership: Supervisor Serialization: Compare and Swap
116	(74)	BITSTRING	1	WUQRESET_NEEDHELP_COUNTDOWN	This value determines how soon job step timing will reset the need help state. This value is how many times the WUQ does not need help, before the need help state is reset. When this value reaches 0, the need help state is reset.
117	(75)	CHARACTER	11	WUQR075	Reserved
128	(80)	CHARACTER	76	WUQ_MASK	To protect from CPUDMaxNumCPUs growing too large without noticing, should never be referenced
128	(80)	BITSTRING	64	WUQCPU_MASK	Mask of online CPUs assigned to this WUQ Serialization: Dispatcher Lock
204	(CC)	CHARACTER	4	WUQANLOGCOREIDUNION	
204	(CC)	SIGNED	2	WUQANLOGCOREID	
204	(CC)	CHARACTER	4	WUQANLOGCOREIDAREA	
204	(CC)	SIGNED	2	WUQANC1LOGCOREID	Affinity core 1 logical core id. When non-zero, WEBs for this logical core id are queued to WUQAnC1LockAndQueue. When zero, no WEBs are queued to WUQAnC1LockAndQueue. Serialization: Dispatcher Lock
206	(CE)	SIGNED	2	WUQANC2LOGCOREID	Affinity core 2 logical core id. When non-zero, WEBs for this logical core id are queued to WUQAnC2LockAndQueue. When zero, no WEBs are queued to WUQAnC2LockAndQueue. Serialization: Dispatcher Lock
208	(D0)	CHARACTER	16	WUQDEPTHAREA	See WUQDepth description
208	(D0)	SIGNED	4	WUQDEPTH	Sum of the total number of WEBs queued from all samples on a per priority bucket basis. Sum is stored in an array with an entry for each priority bucket. This data is updated when IEAVEWDI runs (every 250ms) and scans every Work Unit Queue for dispatchable WEBs. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
224	(E0)	CHARACTER	16	WUQMAXDEPTHAREA	See WUQMaxDepth description

Table 786. Structure WUQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
224	(E0)	SIGNED	4	WUQMAXDEPTH	Maximum number of WEBs queued at each priority bucket. Sum is stored in an array with an entry for each priority bucket. This data is updated when IEAVEWDI runs (every 250ms) and scans every Work Unit Queue for dispatchable WEBs. Maximum values are reset at regular intervals when Supervisor HFTS data is being collected. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
240	(F0)	CHARACTER	8	WUQANC1LOCKANDQUEUE	WUQ affinity node core 1 lock and queue Serialization: WUQ protocol.
248	(F8)	CHARACTER	8	WUQANC2LOCKANDQUEUE	WUQ affinity node core 2 lock and queue Serialization: WUQ protocol.
256	(100)	BITSTRING	1	WUQ_RQM_WEBCMAJOR_DP_SEQNUM	When RQM is active, this is WEBCMAJOR dispatch priority sequence number for this affinity node. There is a 1-byte sequence number for every possible WEBCMAJOR DP that could be RQMed (1 per dispatch priority). All WEBs that get added use their WEBCMAJOR dispatch priority to extract the appropriate sequence number from the WUQ_RQM_WEBCMAJOR_DP_SeqNum and plug it into WEB_RQM_WEBCMAJOR_DP_SeqNum. This sequence number is used to create a logical group of RQM affected WEBs on a per WEBCMAJOR dispatch priority that have an equal priority non-RQM dispatch priority (see WEBCPRTY_Mask_nonRQM_DPs_FW). This logical group of WEBs is in priority order. If RQM activities result in some work near the end of the queue getting delayed for too long, the RQM sequence number for the appropriate WEBCMAJOR dispatch priority will be incremented to start a new equal priority non-RQM dispatch group for this WEBCMAJOR dispatch priority. At that point, the system will stop adding WEBs into the old priority group (the ones that had the old priority group will be deleted, dispatched, and pick up the new sequence number on their next WUQ-added) and start to add new WEBs at the appropriate point in the new priority group. If the new priority group isn't found, it gets added at the end of the equal priority non_RQM dispatch priority.
336	(150)	SIGNED	4	WUQ_RQM_WEBS_REWUQADDED_SDP	Number of RQMed WEBs that were already subdivided and reWUQadded at the same subdivided dispatch priority. Serialization: CS
368	(170)	SIGNED	4	WUQ_SUBDIVIDED_ENCLAVES_RQM	Number of enclaves that were subdivided for Ready QueueManagement (RQM) Serialization: CS
372	(174)	SIGNED	4	WUQ_NONRQM_WEBS_WDI_OUTOFORDER	Number of WEBs IEAVEWDI found that were out of order due to their non-RQM dispatch priority.
376	(178)	SIGNED	4	WUQ_RQM_WEBS_WDI_OUTOFORDER	

Table 786. Structure WUQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Number of WEBs IEAVEWDI found that were out of order due to their RQM dispatch priority.
380	(17C)	SIGNED	4	WUQ_RESUBDIVIDED_ENCLAVES_RQM	Number of enclaves that were resubdivided for Ready Queue Management (RQM) that had already been subdivided. WUQ_Subdivided_Enclaves_RQM - WUQ_ReSubdivided_Enclaves_RQM is the number of new enclaves subdivided.
384	(180)	CHARACTER	16	WUQRELUCTANTSEEKCOUNTS	Counters that represent the number of times a HiperDispatch algorithm sought to run work on an undesirable CPU since the last time this WUQ's state changed (e.g. a CPU assigned to this WUQ exits a wait, enters a wait, or requests help). Each time help is sought, the appropriate count is incremented by 1. When the result is less than or equal to WUQ_kReluctantSeekThreshold the reluctant algorithm NOPs the request. All counters are reset to 0 whenever this WUQ's state changes. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
384	(180)	SIGNED	2	WUQRELUCTANTSEEKVL	The number of times HiperDispatch sought help from a Vertical Low since the last WUQ state change.
386	(182)	SIGNED	2	WUQRELUCTANTSEEKSAMENODE	The number of times HiperDispatch sought help from a same node helper since the last WUQ state change.
388	(184)	SIGNED	2	WUQRELUCTANTSEEKSAMEDRAWER	The number of times HiperDispatch sought help from a same drawer helper since the last WUQ state change.
390	(186)	SIGNED	2	WUQRELUCTANTSEEKDIFFDRAWER	The number of times HiperDispatch sought help from a different drawer helper since the last WUQ state change.
392	(188)	SIGNED	2	WUQRELUCTANTSEEKPEGGED	The number of times HiperDispatch sought help for being pegged since the last WUQ state change.
394	(18A)	CHARACTER	6	WUQR18A	Reserved
400	(190)	CHARACTER	16	WUQNUMWEBSDISPAREA	See WUQNumWEBsDisp description
400	(190)	SIGNED	4	WUQNUMWEBSDISP	Number of WEBs dispatched on a per priority bucket basis. Sum is stored in an array with an entry for each priority bucket. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
416	(1A0)	CHARACTER	32	WUQTOTDISPDELAYAREA	See WUQTotDispDelay description
416	(1A0)	CHARACTER	8	WUQTOTDISPDELAY	Sum of the dispatch delays of all WEBs across all dispatches on a per priority bucket basis (in TOD clock format). Sum is stored in an array with an entry for each priority bucket. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
448	(1C0)	CHARACTER	32	WUQMAXDISPDELAYAREA	See WUQMaxDispDelay description

Table 786. Structure WUQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
448	(1C0)	CHARACTER	8	WUQMAXDISPDELAY	Highest dispatch delay a WEB experienced across all dispatches on a per priority bucket basis (in TOD clock format). Sum is stored in an array with an entry for each priority bucket. Maximum values are reset at regular intervals when Supervisor HFTS data is being collected. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
480	(1E0)	CHARACTER	16	WUQMINORSLICEPREEMPTAREA	
See WUQMinorSlicePreempt description					
480	(1E0)	SIGNED	4	WUQMINORSLICEPREEMPT	Number of times a WEB that originated from this WUQ was preempted on a minor time slice on a per priority bucket basis. Sum is stored in an array with an entry for each priority bucket. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
496	(1F0)	CHARACTER	16	WUQMAJORSLICEPREEMPTAREA	
See WUQMajorSlicePreempt description					
496	(1F0)	SIGNED	4	WUQMAJORSLICEPREEMPT	Number of times a WEB that originated from this WUQ was preempted on a major time slice on a per priority bucket basis. Sum is stored in an array with an entry for each priority bucket. Serialization: None (WUQs are never freed and the code tolerates missing counter updates).
512	(200)	CHARACTER	1	WUQEND(0)	End of WUQ. Note: WEEs are x'1000' bytes in size and there is a dependency that size of the WEE is evenly divisible by the size of the WUQ.
512	(200)	X'200'	0	WUQ_LEN	"*-WUQ"

Table 787. Structure WUQLOCKANDQUEUE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WUQLOCKANDQUEUE	Wuq Lock (active/inactive) and queue
0	(0)	CHARACTER	4	WUQLOCK	WUQ Lockword. Serialization: Compare and Swap.
0	(0)	BITSTRING	2	WUQLOCKWORD_FLAGS	First two bytes of WUQ Lockword. Serialization: Compare and Swap. NOTE: All nonused bits must be zero.
Bit definitions:					
		1... ....		WUQ_INACTIVE	"X'80'" Indicates whether or not this WUQ is active. When 1, this WUQ is not in use and new work may not be queued to it. Serialization: Compare and Swap



Table 787. Structure WUQLOCKANDQUEUE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
2	(2)	BITSTRING	2	WUQLOCK_CPUID	Logical CPU ID of the processor which has locked this WUQ. When lock is not held, this halfword is zero. When a WUQ header is obtained, it is locked for the affinity node WUQ lock and queue which means WUQAnLockAndQueueIsa.WUQ Lock_CPUid contains the logical CPU id that obtained the WEB. When the WUQ header is activated, the affinity node lock and queue lock is zeroed. For core WUQ lock and queues (WUQAnC1LockAndQueueIsa and WUQAnC2LockAndQueueIsa), these are not locked because the affinity node WUQ lock (WUQAnLockAndQueueIsa) prevents work from being added to the affinity node WUQ and all core WUQs. After the WUQ header is activated, WUQ lock and queue is not obtained. Serialization: Compare and Swap.
4	(4)	ADDRESS	4	WUQWUQP	WUQ pointer. WUQ forward pointer. This points to either the highest priority WEB on this WUQ or the start of this WUQ when the queue is empty (with WUQHomeFlags set). When a WEB is added to an empty queue, WEBWUQP will then contains this value and WUQWUQP will point to the added WEB (with WUQHomeFlags set). As WEBs are added or removed from the queue the initial WUQWUQP value remains as the last element on the queue. When a WUQ is scanned unserialized, the code must check that the WEBWUQP at the end of the queue matches the WUQ that initiates the scan. This is because there is a potential to jump to a different queue. With the addition of core wuq homes (WUQAnC1LockAndQueue, WUQAnC2LockAndQueue) to the affinity WUQ home (WUQAnLockAndQueue), the low order bits (WuqHomeFlags) were added to indicate which home this pointer belongs to. This aids in scanning and detection of jumping between core and affinity WUQ homes. The home flags are assigned as follows 0 - WUQ home is for affinity node 1 - WUQ home is for the core 1 WUQ 2 - WUQ home is for the core 2 WUQ Serialization: WUQ protocol
4	(4)	BITSTRING	3	WUQWUQPBYTE1TO3	
Bit definitions:					
7	(7)	BITSTRING	1	WUQHOMEFLAGS	"X'80'" WUQ is not queued
Bit definitions:					
		.... ..1.		WUQHOMEC2	"X'02'" When on, this WUQ home is for core 2 (WUQAnC2LockAndQueueIsa .WuqWuqP)
		.... ...1		WUQHOMEC1	"X'01'" When on, this WUQ home is for core 1 (WUQAnC1LockAndQueueIsa .WuqWuqP)

Table 787. Structure WUQLOCKANDQUEUE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
7	(7) X'2'		0	WUQ_KMAXVHVMCORES	"2" The maximum vertical high plus vertical medium cores the WUQ supports. The WUQ supports a maximum of 2 in the form of 2 VHs, 2 VMs, or 1 VH + 1 VM.
7	(7) X'3'		0	WUQ_KNUMLOCKANDQUEUE	"3" Number of lock and queue structures to look through. Set to number of cores per WUQ, + 1 for the affinity WUQ. Number of WuqLockAndQueue in a WUQ: WUQAnC1LockAndQueue WUQAnC2LockAndQueue WUQAnLockAndQueue
7	(7) X'0'		0	WUQ_KWUQHOMEAFFINITYNODE	"0" WUQHomeFlags value when the WUQ home is for the affinity node (WUQAnLockAndQueueIsa.WuqWuqP) serving all cores.
?ASAXMAC BitConst(0n) Field(WUQAnC1LockAndQueueIsa.WUQHomeFlags) Bit(WUQAnC1LockAndQueueIsa.WUQHomeC1) ByteLen(1) Constname(WUQ_kWUQHomeC1)					
7	(7) X'1'		0	WUQ_KWUQHOMEC1	"1"
7	(7) X'2'		0	WUQ_KWUQHOMEC2	"2"
7	(7) BITSTRING		0	WUQ_KWUQHOMECLEAR	"X'FFFFFF80'" Mask to AND off the non addressing bits in the WUQHomeFlag bits to create a usable WUQ address. NILL with this mask will turn of the low 7 bits. WUQ_WebEnd maps the end of the WEB which is used to calculate the WEB length without including IHAWEB. A WEB is 128 bytes in length on a 128 byte boundary which corresponds to the low seven bits.
7	(7) X'1'		0	WUQ_KRELUCTANTSEEKTHRESHOLD	"1"
Constant for WUQAllow_Diff_Book_Countdown field. A constant of 4 has been chosen based on IMS performance runs.					
7	(7) X'4'		0	WUQALLOW_DIFF_BOOK_HELP_COUNTDOWN_VALUE	"4"
Enclave SRB RQM constants.					
7	(7) X'8'		0	WUQ_NUM_DPS_FOR_RQM	"8" How many dispatch priorities RQM should be done across. RQM will use priorities 1 through WUQ_Num_DPs_For_RQM. The algorithm depends on this constant being a 2^n value.
7	(7) X'7'		0	WUQ_DPS_FOR_RQM_MASK	"7" This mask is used to determine the RQM dispatch priority to use. This mask is ANDed with WUQ_Subdivided_Enclaves_RQM and 1 added to the result to get a RQM minor priority of 1 through WUQ_Num_DPs_For_RQM.
7	(7) X'FF'		0	WEBCMAJOR_HIGHEST_DP	"255" The highest dispatch priority WLM can award is X'FF'.
7	(7) X'B0'		0	WEBCMAJOR_LOWEST_DP	"176" The lowest dispatch priority WLM can award is X'BF', we're going to round down to support a WEBCMAJOR down to x'B0' so it is easier to work with when debugging.

Table 787. Structure WUQLOCKANDQUEUE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Constants for WUQClassPriority field. The lower the value, the higher the priority.					
7	(7) X'80'		0	WUQCLASSPRIORITY_CP	"128" WUQ priority for CP
7	(7) X'7C'		0	WUQCLASSPRIORITY_SUP	"124" WUQ priority for SUP
7	(7) X'7C'		0	WUQCLASSPRIORITY_ZIIP	"124" WUQ priority for zIIP
7	(7) X'78'		0	WUQCLASSPRIORITY_ZAAP	"120" WUQ priority for zAAP
7	(7) X'78'		0	WUQCLASSPRIORITY_ZCBP	"120" WUQ priority for zCBP
7	(7) X'1'		0	ECPX_PARKCORE	"1" Park logical core id
7	(7) X'2'		0	ECPX_UNPARKCORE	"2" Unpark logical core id
7	(7) X'3'		0	ECPX_REMOVECPUFROMNODE	"3" Remove logical CPU id from affinity node
7	(7) X'4'		0	ECPX_PARKCPUBLOCKSNOTINVT	"4" Park a CPU whose CPU control block are not anchored in the Vector Tables
7	(7) X'5'		0	ECPX_PARKCPU_GOING_OFFLINE	"5"
7	(7) X'6'		0	ECPX_UNPARKCPU_STAYING_ONLINE	"6"
7	(7) X'7'		0	ECPX_PARKEDCPU_STAYING_ONLINE	"7"
7	(7) X'7'		0	ECPX_MAX_FUNCTION_CODE	"7"
7	(7) X'0'		0	ECPX_REQUESTCOMPLETE	"0"
7	(7) X'4'		0	ECPX_PARKPENDING	"4"
7	(7) X'8'		0	ECPX_ALREADYPARKED	"8"
7	(7) X'C'		0	ECPX_INVALIDREQUEST	"12"
7	(7) X'10'		0	ECPX_PROCESSINGERROR	"16"
8	(8) X'8'		0	WUQLOCKANDQUEUE_LEN	"*-WUQLOCKANDQUEUE"

Table 788. Cross Reference for IHAWUQ

Name	Offset	Hex Tag
ECPX_ALREADYPARKED	7	8
ECPX_INVALIDREQUEST	7	C
ECPX_MAX_FUNCTION_CODE	7	7
ECPX_PARKCORE	7	1
ECPX_PARKCPU_GOING_OFFLINE	7	5
ECPX_PARKCPUBLOCKSNOTINVT	7	4
ECPX_PARKEDCPU_STAYING_ONLINE	7	7
ECPX_PARKPENDING	7	4
ECPX_PROCESSINGERROR	7	10
ECPX_REMOVECPUFROMNODE	7	3
ECPX_REQUESTCOMPLETE	7	0
ECPX_UNPARKCORE	7	2
ECPX_UNPARKCPU_STAYING_ONLINE	7	6
WEBCMAJOR_HIGHEST_DP	7	FF

Table 788. Cross Reference for IHAWUQ (continued)

Name	Offset	Hex Tag
WEBCMAJOR_LOWEST_DP	7	B0
WUQ	0	
WUQ_BOOK_CROSSING_INDEX	5A	
WUQ_BYLPAR_PROCCCLASS	5E	
WUQ_BYLPAR_PROCCCLASS_BYTE0	5E	
WUQ_BYLPAR_PROCCCLASS_BYTE1	5F	
WUQ_DPS_FOR_RQM_MASK	7	7
WUQ_INACTIVE	0	80
WUQ_KMAXVHVMCORES	7	2
WUQ_KNUMLOCKANDQUEUE	7	3
WUQ_KRELUCTANTSEEKTHRESHOLD	7	1
WUQ_KWUQHOMEAFFINITYNODE	7	0
WUQ_KWUQHOMECLEAR	7	FFFF80
WUQ_KWUQHOMEC1	7	1
WUQ_KWUQHOMEC2	7	2
WUQ_LEN	200	200
WUQ_MASK	80	
WUQ_NEEDHELP_PRIORITY_LEVEL	5B	
WUQ_NONRQM_WEBS_WDI_OUTOFORDER	174	
WUQ_NUM_DPS_FOR_RQM	7	8
WUQ_RESUBDIVIDED_ENCLAVES_RQM	17C	
WUQ_RQM_WEBCMAJOR_DP_SEQNUM	100	
WUQ_RQM_WEBS_REWUQADDED_SDP	150	
WUQ_RQM_WEBS_WDI_OUTOFORDER	178	
WUQ_SUBDIVIDED_ENCLAVES_RQM	170	
WUQALLOW_DIFF_BOOK_HELP_COUNTDOWN_VALUE	7	4
WUQANC1LOCKANDQUEUE	F0	
WUQANC1LOGCOREID	CC	
WUQANC2LOCKANDQUEUE	F8	
WUQANC2LOGCOREID	CE	
WUQANLOCKANDQUEUE	8	
WUQANLOGCOREID	CC	
WUQANLOGCOREIDAREA	CC	
WUQANLOGCOREIDUNION	CC	
WUQAWUQ	14	
WUQAWUQ_INDEX	18	
WUQCHDR	10	80
WUQCLASSPRIORITY	5C	
WUQCLASSPRIORITY_CP	7	80

Table 788. Cross Reference for IHAWUQ (continued)

Name	Offset	Hex Tag
WUQCLASSPRIORITY_SUP	7	7C
WUQCLASSPRIORITY_ZAAP	7	78
WUQCLASSPRIORITY_ZCBP	7	78
WUQCLASSPRIORITY_ZIIP	7	7C
WUQCPRTY	10	
WUQCPU_ACTIVE_TIME	34	
WUQCPU_MASK	80	
WUQDATA	18	
WUQDEPTH	D0	
WUQDEPTHAREA	D0	
WUQEND	200	
WUQFLAG1	4	
WUQFLAG2	6	
WUQFLAG2RSVD	6	
WUQFOREIGN_CPU_TIME	38	
WUQGENERIC_HELP_LIST	64	
WUQHEADER_DATA	0	
WUQHELP_FLAGS	58	
WUQHELP_FLAG1	58	
WUQHELP_FLAG2	59	
WUQHELP_FLAG2HASDEEPQUEUE	59	80
WUQHELP_LIMIT	1C	
WUQHELP_NEEDED	58	80
WUQHOMEC1	7	1
WUQHOMEC2	7	2
WUQHOMEFLLAGS	7	
WUQLAST_RECALC_TIME	70	
WUQLAST_SIGP	1E	
WUQLOCK	0	
WUQLOCK_CPUID	2	
WUQLOCKANDQUEUE	0	
WUQLOCKANDQUEUE_LEN	8	8
WUQLOCKWORD_FLAGS	0	
WUQLOGICAL_CPUID	1A	
WUQMAJORSLICEPREEMPT	1F0	
WUQMAJORSLICEPREEMPTAREA	1F0	
WUQMAXDEPTH	E0	
WUQMAXDEPTHAREA	E0	
WUQMAXDISPDELAY	1C0	

Table 788. Cross Reference for IHAWUQ (continued)

Name	Offset	Hex Tag
WUQMAXDISPDELAYAREA	1C0	
WUQMINORSLICEPREEMPT	1E0	
WUQMINORSLICEPREEMPTAREA	1E0	
WUQNUMWEBSDISP	190	
WUQNUMWEBSDISPAREA	190	
WUQOFFQ	4	80
WUQPROCCLASS	5E	
WUQPROCCLASS_BYTE0	5E	
WUQPROCCLASS_BYTE1	5F	
WUQRELUCTANTSEEKCOUNTS	180	
WUQRELUCTANTSEEKDIFFDRAWER	186	
WUQRELUCTANTSEEKPEGGED	188	
WUQRELUCTANTSEEKSAMEDRAWER	184	
WUQRELUCTANTSEEKSAMENODE	182	
WUQRELUCTANTSEEKVL	180	
WUQRESET_NEEDHELP_COUNTDOWN	74	
WUQR020	20	
WUQR024	24	
WUQR028	28	
WUQR05D	5D	
WUQR068	68	
WUQR075	75	
WUQR18A	18A	
WUQSPECIFIC_HELP_LIST	60	
WUQTOTDISPDELAY	1A0	
WUQTOTDISPDELAYAREA	1A0	
WUQTYPE	7	
WUQTYPEWORD	4	
WUQWEB	0	
WUQWTSS	30	
WUQWUQP	4	
WUQWUQPBYTE1T03	4	

## IHAXCVT information

### IHAXCVT programming interface information

IHAXCVT is a programming interface.

## IHAXCVT heading information

**Common name:** eXtended CVT (potentially above 2G)

**Macro ID:** IHAXCVT

**DSECT name:** XCVT

**Owning component:** Supervisor Control (SC1C5)

**Eye-catcher ID:** XCVT  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: nucleus  
Key: 0  
Residency: Above 2G, if supported

**Size:** XCVT -- X'0048' bytes

**Created by:** IEAVXCVT

**Pointed to by:** PSAXCVT

**Serialization:** Dependent on the specific field

**Function:** The XCVT is a logical extension of the CVT.  
It must be accessed only in AMODE 64

## IHAXCVT mapping

Table 789. Structure XCVT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	XCVT	
0	(0)	CHARACTER	4	XCVTXCVT	Acronym in EBCDIC- "XCVT"
4	(4)	CHARACTER	4	XCVTR004	Reserved
8	(8)	ADDRESS	8	XCVT_IARCP64_GET_ADDR	
16	(10)	ADDRESS	8	XCVT_IARCP64_FREE_ADDR	
24	(18)	ADDRESS	8	XCVT_IARST64_GET_ADDR	
32	(20)	ADDRESS	8	XCVT_IARST64_FREE_ADDR	
40	(28)	ADDRESS	8	XCVT_IARCP64_FREE2_ADDR	
48	(30)	ADDRESS	8	XCVT_FRAT	Function Registry Anchor Table. 0 early in IPL. Owned by: FXE Serialization: N/A
56	(38)	ADDRESS	8	XCVT_GLZIVT	zCX Anchor
64	(40)	CHARACTER	8	XCVTR040	Reserved
64	(40)	X'48'	0	XCVT_LEN	"*-XCVT"

Table 790. Cross Reference for IHAXCVT

Name	Offset	Hex Tag
XCVT	0	
XCVT_FRAT	30	
XCVT_GLZIVT	38	
XCVT_IARCP64_FREE_ADDR	10	
XCVT_IARCP64_FREE2_ADDR	28	

Table 790. Cross Reference for IHAXCVT (continued)

Name	Offset	Hex Tag
XCVT_IARCP64_GET_ADDR	8	
XCVT_IARST64_FREE_ADDR	20	
XCVT_IARST64_GET_ADDR	18	
XCVT_LEN	40	48
XCVTR004	4	
XCVTR040	40	
XCVTXCVT	0	

## IHAXSBO information

### IHAXSBO heading information

<b>Common name:</b>	EXTENDED STATUS BLOCK OLD -- PRE Z/OS R6
<b>Macro ID:</b>	IHAXSBO
<b>DSECT name:</b>	XSBO
<b>Owning component:</b>	SUPERVISOR CONTROL (SC1C5)
<b>Eye-catcher ID:</b>	XSB Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 255 (ELSQA) OR 238 (COMMON) Key: 0 Residency: ABOVE 16 MB LINE
<b>Size:</b>	128 BYTES
<b>Created by:</b>	IEAVEXPM IEAVESVC IEAVEMIN IEAMSWCB IEAVESPM
<b>Pointed to by:</b>	IHSAXSB FOR XSBO OF IHSA SSRBXSBO FOR XSBO OF SSRB RBXSBO FOR XSBO OF IRB,PRB,SIRB,SVRB TCBXSBO CURRENT XSBO OF TASK
<b>Serialization:</b>	XSBO OF IHSA - LOCAL LOCK XSBO OF SSRB - N/A XSBO OF IRB,PRB,SIRB,SVRB - TCBACTIV
<b>Function:</b>	CONTAINS ADDITIONAL INFORMATION REQUIRED FOR DISPATCH OR REDISPATCH OF WORK UNIT.



## IHAXSBO mapping

Table 791. Structure XSBO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	200	XSBO	EXTENDED STATUS BLOCK
0	(0)	CHARACTER	0	XSBOBEGIN	BEGINNING OF XSBO.
0	(0)	CHARACTER	4	XSBOXSBO	XSBO ACRONYM = 'XSB'
4	(4)	ADDRESS	4	XSBOLINK	LINK TO NEXT AVAILABLE XSBO IN POOL. SET BY EXIT, IEAVEOR, WHEN PUTTING XSBO IN POOL. CLEARED BY STAGE 3, IEAVEEE0, WHEN ASSIGNING XSBO TO AN IRB.
4	(4)	BITSTRING	4	XSBOFLGS	XSBO FLAGS.
8	(8)	CHARACTER	8	XSBOXMCRS	XM CONTROL REGS
8	(8)	UNSIGNED	4	XSBOXMCR3	CONTROL REG 3.
8	(8)	UNSIGNED	2	XSBOKM	KEY MASK.
10	(A)	UNSIGNED	2	XSBOASASID	SECONDARY ASID.
12	(C)	UNSIGNED	4	XSBOXMCR4	CONTROL REG 4.
12	(C)	UNSIGNED	2	XSBOAX	AUTHORIZATION INDEX.
14	(E)	UNSIGNED	2	XSBOPASID	PRIMARY ASID.
16	(10)	CHARACTER	8	XSBOCMLE	CML LOCK STATUS ELEMENT.
16	(10)	ADDRESS	4	XSBOXLIDR	DATA FOR IDENTIFICATION OF CML REQUESTOR. ASID ASSOCIATED WITH SRB MODE CML LOCK REQUESTOR (IN XSBO OF SSRB).
20	(14)	ADDRESS	4	XSBOXLAS	ASCB ADDRESS OF CML LOCK REQUESTED/ OWNED.
24	(18)	CHARACTER	8	XSBOSTKE	CURRENT PCLINK STACK INFORMATION
24	(18)	UNSIGNED	2	XSBOTKN	CURRENT STACK TOKEN.
26	(1A)	UNSIGNED	2	XSBOASD	CURRENT STACK ADDRESS SPACE DESIGNATOR.
28	(1C)	ADDRESS	4	XSBOSEL	CURRENT STACK ELEMENT ADDRESS.
32	(20)	UNSIGNED	4	XSBOSRSN	SUSPEND/RESUME SEQUENCE # OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: TCBACTIV AND DISABLEMENT
36	(24)	UNSIGNED	4	XSBOEAXW	EAX VALUE WORD.
36	(24)	UNSIGNED	2	XSBOEAX	EAX VALUE.
38	(26)	UNSIGNED	2	*	LOWER HALF OF FULLWORD USED TO HOLD EAX VALUE - PROVIDED SO THAT STCTL CAN BE USED TO STORE CONTROL REGISTER 8 INTO XSBOEAXW. THE CONTENTS OF THIS HALFWORD ARE UNPREDICTABLE.
40	(28)	ADDRESS	4	XSBOALOV	DISPATCHABLE UNIT ACCESS LIST VIRTUAL ADDRESS.
44	(2C)	ADDRESS	4	XSBOALD	DISPATCHABLE UNIT ACCESS LIST REAL ADDRESS.
48	(30)	CHARACTER	64	XSBOARS	ACCESS REGISTER SAVEAREA.
48	(30)	UNSIGNED	4	XSBOAR0	ACCESS REGISTER 0.
52	(34)	UNSIGNED	4	XSBOAR1	ACCESS REGISTER 1.
56	(38)	UNSIGNED	4	XSBOAR2	ACCESS REGISTER 2.
60	(3C)	UNSIGNED	4	XSBOAR3	ACCESS REGISTER 3.
64	(40)	UNSIGNED	4	XSBOAR4	ACCESS REGISTER 4.
68	(44)	UNSIGNED	4	XSBOAR5	ACCESS REGISTER 5.
72	(48)	UNSIGNED	4	XSBOAR6	ACCESS REGISTER 6.
76	(4C)	UNSIGNED	4	XSBOAR7	ACCESS REGISTER 7.

Table 791. Structure XSBO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
80	(50)	UNSIGNED	4	XSBOAR8	ACCESS REGISTER 8.
84	(54)	UNSIGNED	4	XSBOAR9	ACCESS REGISTER 9.
88	(58)	UNSIGNED	4	XSBOARA	ACCESS REGISTER 10.
92	(5C)	UNSIGNED	4	XSBOARB	ACCESS REGISTER 11.
96	(60)	UNSIGNED	4	XSBOARC	ACCESS REGISTER 12.
100	(64)	UNSIGNED	4	XSBOARD	ACCESS REGISTER 13.
104	(68)	UNSIGNED	4	XSBOARE	ACCESS REGISTER 14.
108	(6C)	UNSIGNED	4	XSBOARF	ACCESS REGISTER 15.
112	(70)	BITSTRING	1	XSBOFLAG2	FLAG BYTE.
		1... ....		XSBOLSUSB	LINKAGE STACK UNSTACK SUPPRESSION BIT.
		.1... ....		XSBOLSRST	IF ONE, EXIT & EXIT PROLOG WILL NOT ENFORCE THE LINKAGE STACK CHECKPOINT, JUST RESTORE THE LINKAGE STACK. . . . . SET IN THE EXITING RB.
		..1. ....		XSBOLSESB	LINKAGE STACK EXTRACT/MODIFY SUPPRESSION BIT. '20'X
		...1 1111		*	RESERVED.
113	(71)	CHARACTER	3	XSBO071	RESERVED.
116	(74)	ADDRESS	4	XSBO0LSCP	LINKAGE STACK CHECKPOINT ADDRESS.
120	(78)	ADDRESS	4	XSBO0SXSB0	POINTER TO THE SXSB0.
124	(7C)	CHARACTER	4	XSBO07C	RESERVED.
128	(80)	CHARACTER	64	XSBOG64H	64-BIT GPR HIGH HALVES
128	(80)	CHARACTER	4	XSBOG64H0	64-BIT GPR 0 BITS 0-31
132	(84)	CHARACTER	4	XSBOG64H1	64-BIT GPR 1 BITS 0-31
136	(88)	CHARACTER	4	XSBOG64H2	64-BIT GPR 2 BITS 0-31
140	(8C)	CHARACTER	4	XSBOG64H3	64-BIT GPR 3 BITS 0-31
144	(90)	CHARACTER	4	XSBOG64H4	64-BIT GPR 4 BITS 0-31
148	(94)	CHARACTER	4	XSBOG64H5	64-BIT GPR 5 BITS 0-31
152	(98)	CHARACTER	4	XSBOG64H6	64-BIT GPR 6 BITS 0-31
156	(9C)	CHARACTER	4	XSBOG64H7	64-BIT GPR 7 BITS 0-31
160	(A0)	CHARACTER	4	XSBOG64H8	64-BIT GPR 8 BITS 0-31
164	(A4)	CHARACTER	4	XSBOG64H9	64-BIT GPR 9 BITS 0-31
168	(A8)	CHARACTER	4	XSBOG64HA	64-BIT GPR 10 BITS 0-31
172	(AC)	CHARACTER	4	XSBOG64HB	64-BIT GPR 11 BITS 0-31
176	(B0)	CHARACTER	4	XSBOG64HC	64-BIT GPR 12 BITS 0-31
180	(B4)	CHARACTER	4	XSBOG64HD	64-BIT GPR 13 BITS 0-31
184	(B8)	CHARACTER	4	XSBOG64HE	64-BIT GPR 14 BITS 0-31
188	(BC)	CHARACTER	4	XSBOG64HF	64-BIT GPR 15 BITS 0-31
192	(C0)	CHARACTER	8	XSBO0TRNE	ESAME VIRTUAL ADDRESS CAUSING TRANSLATION EXCEPTION IF PROGRAM INTERRUPT X'10', X'11', X'39', X'3A'
200	(C8)	CHARACTER	0	XSBO0END	END OF XSBO.

Table 792. Constants for IHAXSBO

Len	Type	Value	Name	Description
2	DECIMAL	10	XSBO0PCNT	XSBO POOL COUNT.
2	DECIMAL	10	XSBO0PXCNT	XSBO POOL EXTENT COUNT.

Table 793. Cross Reference for IHAXSBO

Name	Offset	Hex Tag
XSB0	0	
XSB0ALD	2C	
XSB0ALOV	28	
XSB0ARA	58	
XSB0ARB	5C	
XSB0ARC	60	
XSB0ARD	64	
XSB0ARE	68	
XSB0ARF	6C	
XSB0ARS	30	
XSB0AR0	30	
XSB0AR1	34	
XSB0AR2	38	
XSB0AR3	3C	
XSB0AR4	40	
XSB0AR5	44	
XSB0AR6	48	
XSB0AR7	4C	
XSB0AR8	50	
XSB0AR9	54	
XSB0ASD	1A	
XSB0AX	C	
XSB0BEGIN	0	
XSB0CMLE	10	
XSB0EAX	24	
XSB0EAXW	24	
XSB0END	C8	
XSB0FLAG2	70	
XSB0FLGS	4	
XSB0G64H	80	
XSB0G64HA	A8	
XSB0G64HB	AC	
XSB0G64HC	B0	
XSB0G64HD	B4	
XSB0G64HE	B8	
XSB0G64HF	BC	
XSB0G64H0	80	
XSB0G64H1	84	
XSB0G64H2	88	

Table 793. Cross Reference for IHAXSBO (continued)

Name	Offset	Hex Tag
XSB0G64H3	8C	
XSB0G64H4	90	
XSB0G64H5	94	
XSB0G64H6	98	
XSB0G64H7	9C	
XSB0G64H8	A0	
XSB0G64H9	A4	
XSB0KM	8	
XSB0LINK	4	
XSB0LSCP	74	
XSB0LSESB	70	20
XSB0LSRST	70	40
XSB0LSUSB	70	80
XSB0PASID	E	
XSB0TRNE	C0	
XSB0R07C	7C	
XSB0R071	71	
XSB0SASID	A	
XSB0SEL	1C	
XSB0SRSN	20	
XSB0STKE	18	
XSB0XSBO	78	
XSB0TKN	18	
XSB0XLAS	14	
XSB0XLIDR	10	
XSB0XMCRS	8	
XSB0XMCR3	8	
XSB0XMCR4	C	
XSB0XSBO	0	

## IHAXTL64 information

### IHAXTL64 programming interface information

IHAXTL64 is a programming interface.

### IHAXTL64 heading information

**Common name:** Extent List 64  
**Macro ID:** IHAXTL64  
**DSECT name:** XTL64 XTL64E

**Owning component:** Contents Supervision (SC1CJ)

**Eye-catcher ID:** none

**Storage attributes:** Subpool: 245 (global), 255 (local)  
Key: 0

**Size:** One XTL64 plus one XTL64E per extent  
XTL64 -- X'0008' bytes  
XTL64E -- X'0010' bytes

**Created by:** CSVFORKM (local) - CSV Fork exit processing  
CSVLLTCH (local) - LLA module fetch  
CSVVFTCH (in VFWK) - Virtual Fetch  
IEAVID00 (local) - IDENTIFY JPA processing  
Certain services  
IEAVID00 (global) - IDENTIFY LPA processing  
IEAVNPD5 (global) - Pageable Device support module loader

**Pointed to by:** CDXXTL64Addr (Field in IHACDX)

**Serialization:** Local Lock.

**Function:** The XTL64 contains information about the number, size, and location of the extents of a load module or program object.

## IHAXTL64 mapping

Table 794. Structure XTL64

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	XTL64	
0	(0)	CHARACTER	8	XTL64_DATA	Non-class all-data name
0	(0)	CHARACTER	8	XTL64_HEADER	Reserved
0	(0)	SIGNED	4	XTL64_SIZE	Length of extent list
4	(4)	SIGNED	4	XTL64_NUMEXTENTS	Number of extent entries that follow, each mapped by DSECT XTL64E
8	(8)	CHARACTER	1	XTL64_ENTRIES(0)	Start of entry data
8	(8)	X'10'	0	XTL64_MAXEXTENTS	"16"
8	(8)	X'108'	0	XTL64_MAXSIZE	"264"
8	(8)	X'8'	0	XTL64_LEN	"*-XTL64"

Table 795. Structure XTL64E

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	XTL64E	
0	(0)	ADDRESS	8	XTL64E_EXTENTADDR	Address of extent
0	(0)	CHARACTER	8	XTL64E_EXTENTADDR_C	Char data type
0	(0)	SIGNED	4	XTL64E_EXTENTADDR_H	High half
4	(4)	SIGNED	4	XTL64E_EXTENTADDR_L	Low half
8	(8)	SIGNED	8	XTL64E_EXTENTLEN	Length of extent
8	(8)	CHARACTER	8	XTL64E_EXTENTLENC	Char data type
8	(8)	SIGNED	4	XTL64E_EXTENTLEN_H	High half
12	(C)	SIGNED	4	XTL64E_EXTENTLEN_L	Low half
12	(C)	X'FF'	0	XTL64_KSUBPOOL_LOCAL	"255"

Table 795. Structure XTL64E (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
12	(C)	X'F5'	0	XTL64_KSUBPOOL_GLOBAL	"245"
12	(C)	X'10'	0	XTL64E_LEN	"*-XTL64E"

Table 796. Cross Reference for IHAXTL64

Name	Offset	Hex	Tag
XTL64	0		
XTL64_DATA	0		
XTL64_ENTRIES	8		
XTL64_HEADER	0		
XTL64_KSUBPOOL_GLOBAL	C		F5
XTL64_KSUBPOOL_LOCAL	C		FF
XTL64_LEN	8		8
XTL64_MAXEXTENTS	8		10
XTL64_MAXSIZE	8		108
XTL64_NUMEXTENTS	4		
XTL64_SIZE	0		
XTL64E	0		
XTL64E_EXTENTADDR	0		
XTL64E_EXTENTADDR_H	0		
XTL64E_EXTENTADDR_L	4		
XTL64E_EXTENTADDR_C	0		
XTL64E_EXTENTLEN	8		
XTL64E_EXTENTLEN_H	8		
XTL64E_EXTENTLEN_L	C		
XTL64E_EXTENTLENC	8		
XTL64E_LEN	C		10

## IHLMGTRC information

### IHLMGTRC programming interface information

IHLMGTRC is a programming interface.

### IHLMGTRC heading information

<b>Common name:</b>	GTF Event Identifier Constants
<b>Macro ID:</b>	IHLMGTRC
<b>DSECT name:</b>	None
<b>Owning component:</b>	Generalized Trace Facility (SC111)
<b>Eye-catcher ID:</b>	None

**Storage attributes:** Subpool: N/A  
Key: N/A

**Size:** N/A  
FREQUENCY: N/A

**Created by:** N/A  
INITIALIZED BY: N/A

**Pointed to by:** N/A

**Serialization:** None

**Function:** Map event values associated with IBM system and subsystem events. The macro is designed to be used by IBM-supplied format appendages and user-supplied exit modules. This mapping provides documentation of the IDs assigned to IBM system and subsystem events.

## IHLMGTRC mapping

Table 797. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
SYMBOLIC ID TABLE FOR THE GTRACE MACRO					
0	(0)	BITSTRING	0	IHLMDMA1	"X'FFF'" 4095
0	(0)	BITSTRING	0	IGGSP169	"X'FFE'" 4094 Y02014
0	(0)	BITSTRING	0	IGGSP451	"X'FFD'" 4093 Y02014
0	(0)	BITSTRING	0	IGGSP251	"X'FFC'" 4092 Y02014
0	(0)	BITSTRING	0	IGGSP145	"X'FFB'" 4091 Y02014
0	(0)	BITSTRING	0	IGGSP239	"X'FFA'" 4090 Y02014
0	(0)	BITSTRING	0	IGGSP235	"X'FF9'" 4089 Y02014
0	(0)	BITSTRING	0	IGGSP119	"X'FF8'" 4088 Y02014
0	(0)	BITSTRING	0	IGGSP215	"X'FF7'" 4087 Y02014
0	(0)	BITSTRING	0	IGGSP112	"X'FF6'" 4086 Y02014
0	(0)	BITSTRING	0	IDAAM01	"X'FF5'" 4085
0	(0)	BITSTRING	0	IGGSP008	"X'FF4'" 4084 Y02014
0	(0)	BITSTRING	0	IGGSP002	"X'FF3'" 4083 Y02014
0	(0)	BITSTRING	0	ISTLNEID	"X'FF2'" 4082
0	(0)	BITSTRING	0	ISTCLEID	"X'FF1'" 4081
0	(0)	BITSTRING	0	ISTRPEID	"X'FF0'" 4080
0	(0)	BITSTRING	0	ISTTPEID	"X'FEF'" 4079
0	(0)	BITSTRING	0	ISTVIEID	"X'FE1'" 4065 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTHEID	"X'FE2'" 4066 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTREID	"X'FE3'" 4067 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTDEID	"X'FE4'" 4068 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	IMDGPD50	"X'FE0'" 4064
0	(0)	BITSTRING	0	IMDGPD49	"X'FDF'" 4063
0	(0)	BITSTRING	0	IMDGPD48	"X'FDE'" 4062
0	(0)	BITSTRING	0	IMDGPD47	"X'FDD'" 4061

Table 797. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IMDGPD46	"X' FDC ' " 4060
0	(0)	BITSTRING	0	IMDGPD45	"X' FDB ' " 4059
0	(0)	BITSTRING	0	IMDGPD44	"X' FDA ' " 4058
0	(0)	BITSTRING	0	IMDGPD43	"X' FD9 ' " 4057
0	(0)	BITSTRING	0	IMDGPD42	"X' FD8 ' " 4056
0	(0)	BITSTRING	0	IMDGPD41	"X' FD7 ' " 4055
0	(0)	BITSTRING	0	IMDGPD40	"X' FD6 ' " 4054
0	(0)	BITSTRING	0	IMDGPD39	"X' FD5 ' " 4053
0	(0)	BITSTRING	0	IMDGPD38	"X' FD4 ' " 4052
0	(0)	BITSTRING	0	IMDGPD37	"X' FD3 ' " 4051
0	(0)	BITSTRING	0	IMDGPD36	"X' FD2 ' " 4050
0	(0)	BITSTRING	0	IMDGPD35	"X' FD1 ' " 4049
0	(0)	BITSTRING	0	IMDGPD34	"X' FD0 ' " 4048
0	(0)	BITSTRING	0	IMDGPD33	"X' FCF ' " 4047
0	(0)	BITSTRING	0	IMDGPD32	"X' FCE ' " 4046
0	(0)	BITSTRING	0	IMDGPD31	"X' FCD ' " 4045
0	(0)	BITSTRING	0	IMDGPD30	"X' FCC ' " 4044
0	(0)	BITSTRING	0	IMDGPD29	"X' FCB ' " 4043
0	(0)	BITSTRING	0	IMDGPD28	"X' FCA ' " 4042
0	(0)	BITSTRING	0	IMDGPD27	"X' FC9 ' " 4041
0	(0)	BITSTRING	0	IMDGPD26	"X' FC8 ' " 4040
0	(0)	BITSTRING	0	IMDGPD25	"X' FC7 ' " 4039
0	(0)	BITSTRING	0	IMDGPD24	"X' FC6 ' " 4038
0	(0)	BITSTRING	0	IMDGPD23	"X' FC5 ' " 4037
0	(0)	BITSTRING	0	IMDGPD22	"X' FC4 ' " 4036
0	(0)	BITSTRING	0	IMDGPD21	"X' FC3 ' " 4035
0	(0)	BITSTRING	0	IMDGPD20	"X' FC2 ' " 4034
0	(0)	BITSTRING	0	IMDGPD19	"X' FC1 ' " 4033
0	(0)	BITSTRING	0	IMDGPD18	"X' FC0 ' " 4032
0	(0)	BITSTRING	0	IMDGPD17	"X' FBF ' " 4031
0	(0)	BITSTRING	0	IMDGPD16	"X' FBE ' " 4030
0	(0)	BITSTRING	0	IMDGPD15	"X' FBD ' " 4029
0	(0)	BITSTRING	0	IMDGPD14	"X' FBC ' " 4028
0	(0)	BITSTRING	0	IMDGPD13	"X' FBB ' " 4027
0	(0)	BITSTRING	0	IMDGPD12	"X' FBA ' " 4026
0	(0)	BITSTRING	0	IMDGPD11	"X' FB9 ' " 4025
0	(0)	BITSTRING	0	IMDGPD10	"X' FB8 ' " 4024
0	(0)	BITSTRING	0	IMDGPD09	"X' FB7 ' " 4023
0	(0)	BITSTRING	0	IMDGPD08	"X' FB6 ' " 4022
0	(0)	BITSTRING	0	IMDGPD07	"X' FB5 ' " 4021
0	(0)	BITSTRING	0	IMDGPD06	"X' FB4 ' " 4020
0	(0)	BITSTRING	0	IMDGPD05	"X' FB3 ' " 4019
0	(0)	BITSTRING	0	IMDGPD04	"X' FB2 ' " 4018
0	(0)	BITSTRING	0	IMDGPD03	"X' FB1 ' " 4017
0	(0)	BITSTRING	0	IMDGPD02	"X' FB0 ' " 4016



Table 797. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IMDGPD01	"X'FAF'" 4015
0	(0)	BITSTRING	0	IMDGPD00	"X'FAC'" 4012 NetSpool
0	(0)	BITSTRING	0	IMDNFS01	"X'FAB'" 4011 NFS
0	(0)	BITSTRING	0	IMDTCAM9	"X'FA9'" 4009 TCAM
0	(0)	BITSTRING	0	IMDTCAM8	"X'FA8'" 4008 TCAM
0	(0)	BITSTRING	0	IMDTCAM7	"X'FA7'" 4007 TCAM
0	(0)	BITSTRING	0	IMDTCAM6	"X'FA6'" 4006 TCAM
0	(0)	BITSTRING	0	IMDTCAM5	"X'FA5'" 4005 TCAM
0	(0)	BITSTRING	0	IMDTCAM4	"X'FA4'" 4004 TCAM
0	(0)	BITSTRING	0	IMDTCAM3	"X'FA3'" 4003 TCAM
0	(0)	BITSTRING	0	IMDTCAM2	"X'FA2'" 4002 TCAM
0	(0)	BITSTRING	0	IMDTCAM1	"X'FA1'" 4001 TCAM
0	(0)	BITSTRING	0	IMDTCAM0	"X'FA0'" 4000 TCAM
0	(0)	BITSTRING	0	IMDCICS	"X'F6C'" 3948 CICS
0	(0)	BITSTRING	0	IMDVSM	"X'F65'" 3941 VIRTUAL STORAGE MANAGER
0	(0)	BITSTRING	0	IMDDB2VT	"X'F5F'" 3935 DB2/VSAM TRANSPARENCY
0	(0)	BITSTRING	0	IMDFSITD	"X'F5D'" 3933 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITC	"X'F5C'" 3932 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITB	"X'F5B'" 3931 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITA	"X'F5A'" 3930 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT9	"X'F59'" 3929 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT8	"X'F58'" 3928 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT7	"X'F57'" 3927 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT6	"X'F56'" 3926 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT5	"X'F55'" 3925 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT4	"X'F54'" 3924 FSI TRACE
0	(0)	BITSTRING	0	IMDOSIC	"X'F53'" 3923 OPEN SYSTEMS INTERCONN
0	(0)	BITSTRING	0	IMDLANRW	"X'F3F'" LANRES
0	(0)	BITSTRING	0	IMDLANRV	"X'F3E'" LANRES
0	(0)	BITSTRING	0	IMDLANRU	"X'F3D'" LANRES
0	(0)	BITSTRING	0	IMDLANRT	"X'F3C'" LANRES
0	(0)	BITSTRING	0	IMDLANRS	"X'F3B'" LANRES
0	(0)	BITSTRING	0	IMDLANRR	"X'F3A'" LANRES
0	(0)	BITSTRING	0	IMDLANRQ	"X'F39'" LANRES
0	(0)	BITSTRING	0	IMDLANRP	"X'F38'" LANRES
0	(0)	BITSTRING	0	IMDLANRO	"X'F37'" LANRES
0	(0)	BITSTRING	0	IMDLANRN	"X'F36'" LANRES
0	(0)	BITSTRING	0	IMDLANRM	"X'F35'" LANRES
0	(0)	BITSTRING	0	IMDLANRL	"X'F34'" LANRES
0	(0)	BITSTRING	0	IMDLANRK	"X'F33'" LANRES
0	(0)	BITSTRING	0	IMDLANRJ	"X'F32'" LANRES
0	(0)	BITSTRING	0	IMDLANRI	"X'F31'" LANRES
0	(0)	BITSTRING	0	IMDLANRH	"X'F30'" LANRES
0	(0)	BITSTRING	0	IMDLANRG	"X'F2F'" LANRES
0	(0)	BITSTRING	0	IMDLANRF	"X'F2E'" LANRES

Table 797. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IMDLANRE	"X'F2D'" LANRES
0	(0)	BITSTRING	0	IMDLANRD	"X'F2C'" LANRES
0	(0)	BITSTRING	0	IMDLANRC	"X'F2B'" LANRES
0	(0)	BITSTRING	0	IMDLANRB	"X'F2A'" LANRES
0	(0)	BITSTRING	0	IMDLANRA	"X'F29'" LANRES
0	(0)	BITSTRING	0	IMDLANR9	"X'F28'" LANRES
0	(0)	BITSTRING	0	IMDLANR8	"X'F27'" LANRES
0	(0)	BITSTRING	0	IMDLANR7	"X'F26'" LANRES
0	(0)	BITSTRING	0	IMDLANR6	"X'F25'" LANRES
0	(0)	BITSTRING	0	IMDLANR5	"X'F24'" LANRES
0	(0)	BITSTRING	0	IMDLANR4	"X'F23'" LANRES
0	(0)	BITSTRING	0	IMDLANR3	"X'F22'" LANRES
0	(0)	BITSTRING	0	IMDLANR2	"X'F21'" LANRES
0	(0)	BITSTRING	0	IMDLANR1	"X'F20'" LANRES
0	(0)	BITSTRING	0	IEFDB400A	"X'F1F'" DYNALLOC
0	(0)	BITSTRING	0	IEFDB400B	"X'F1E'" DYNALLOC
0	(0)	BITSTRING	0	IEFDB400C	"X'F1D'" DYNALLOC

Table 798. Cross Reference for IHLMGTRC

Name	Offset	Hex Tag
IDAAM01	0	FF5
IEFDB400A	0	F1F
IEFDB400B	0	F1E
IEFDB400C	0	F1D
IGGSP002	0	FF3
IGGSP008	0	FF4
IGGSP112	0	FF6
IGGSP119	0	FF8
IGGSP145	0	FFB
IGGSP169	0	FFE
IGGSP215	0	FF7
IGGSP235	0	FF9
IGGSP239	0	FFA
IGGSP251	0	FFC
IGGSP451	0	FFD
IHLMDMA1	0	FFF
IMDCICS	0	F6C
IMDDB2VT	0	F5F
IMDFSITA	0	F5A
IMDFSITB	0	F5B
IMDFSITC	0	F5C

Table 798. Cross Reference for IHLMGTRC (continued)

Name	Offset	Hex Tag
IMDFSITD	0	F5D
IMDFSIT4	0	F54
IMDFSIT5	0	F55
IMDFSIT6	0	F56
IMDFSIT7	0	F57
IMDFSIT8	0	F58
IMDFSIT9	0	F59
IMDGPD00	0	FAC
IMDGPD01	0	FAF
IMDGPD02	0	FB0
IMDGPD03	0	FB1
IMDGPD04	0	FB2
IMDGPD05	0	FB3
IMDGPD06	0	FB4
IMDGPD07	0	FB5
IMDGPD08	0	FB6
IMDGPD09	0	FB7
IMDGPD10	0	FB8
IMDGPD11	0	FB9
IMDGPD12	0	FBA
IMDGPD13	0	FBB
IMDGPD14	0	FBC
IMDGPD15	0	FBD
IMDGPD16	0	FBE
IMDGPD17	0	FBF
IMDGPD18	0	FC0
IMDGPD19	0	FC1
IMDGPD20	0	FC2
IMDGPD21	0	FC3
IMDGPD22	0	FC4
IMDGPD23	0	FC5
IMDGPD24	0	FC6
IMDGPD25	0	FC7
IMDGPD26	0	FC8
IMDGPD27	0	FC9
IMDGPD28	0	FCA
IMDGPD29	0	FCB
IMDGPD30	0	FCC
IMDGPD31	0	FCD

Table 798. Cross Reference for IHLMGTRC (continued)

Name	Offset	Hex Tag
IMDGP32	0	FCE
IMDGP33	0	FCF
IMDGP34	0	FD0
IMDGP35	0	FD1
IMDGP36	0	FD2
IMDGP37	0	FD3
IMDGP38	0	FD4
IMDGP39	0	FD5
IMDGP40	0	FD6
IMDGP41	0	FD7
IMDGP42	0	FD8
IMDGP43	0	FD9
IMDGP44	0	FDA
IMDGP45	0	FDB
IMDGP46	0	FDC
IMDGP47	0	FDD
IMDGP48	0	FDE
IMDGP49	0	FDF
IMDGP50	0	FE0
IMDLANRA	0	F29
IMDLANRB	0	F2A
IMDLANRC	0	F2B
IMDLANRD	0	F2C
IMDLANRE	0	F2D
IMDLANRF	0	F2E
IMDLANRG	0	F2F
IMDLANRH	0	F30
IMDLANRI	0	F31
IMDLANRJ	0	F32
IMDLANRK	0	F33
IMDLANRL	0	F34
IMDLANRM	0	F35
IMDLANRN	0	F36
IMDLANRO	0	F37
IMDLANRP	0	F38
IMDLANRQ	0	F39
IMDLANRR	0	F3A
IMDLANRS	0	F3B
IMDLANRT	0	F3C

Table 798. Cross Reference for IHLMGTRC (continued)

Name	Offset	Hex Tag
IMDLANRU	0	F3D
IMDLANRV	0	F3E
IMDLANRW	0	F3F
IMDLANR1	0	F20
IMDLANR2	0	F21
IMDLANR3	0	F22
IMDLANR4	0	F23
IMDLANR5	0	F24
IMDLANR6	0	F25
IMDLANR7	0	F26
IMDLANR8	0	F27
IMDLANR9	0	F28
IMDNFS01	0	FAB
IMDOSIC	0	F53
IMDTCAM0	0	FA0
IMDTCAM1	0	FA1
IMDTCAM2	0	FA2
IMDTCAM3	0	FA3
IMDTCAM4	0	FA4
IMDTCAM5	0	FA5
IMDTCAM6	0	FA6
IMDTCAM7	0	FA7
IMDTCAM8	0	FA8
IMDTCAM9	0	FA9
IMDVSM	0	F65
ISTCLEID	0	FF1
ISTLNEID	0	FF2
ISTRPEID	0	FF0
ISTTDEID	0	FE4
ISTTHEID	0	FE2
ISTTPEID	0	FEF
ISTTREID	0	FE3
ISTVIEID	0	FE1

## IHSA information

### IHSA heading information

**Common name:** INTERRUPT HANDLER SAVE AREA

**Macro ID:** IHAIHSA

**DSECT name:** IHSA

**Owning component:** SUPERVISOR CONTROL (SC1C5)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: 255  
Key: 0  
Residency: Below 16M

**Size:** Offset of IHSAEND minus the offset of IHSA

**Created by:** IEAVEMIN

**Pointed to by:** ASXBIHSA

**Serialization:** THE LOCAL LOCK

**Function:** Provides a save area for the status of an interrupted task holding the local or CML lock.  
Fields beyond IHSAFRRS are at a different offset in z/OS 1.6 than prior to that release.

## IHSA mapping

Table 799. Structure IHSA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1800	IHSA	
0	(0)	CHARACTER	8	IHSACPUT	VALUE OF CPU TIMER
8	(8)	SIGNED	4	IHSANTCB	VALUE OF PSATNEW
12	(C)	SIGNED	4	IHSAOTCB	VALUE OF PSATOLD
16	(10)	CHARACTER	8	IHSACPSW	VALUE OF CURRENT PSW
24	(18)	CHARACTER	32	IHSAFPRS	FLOATING POINT REG SAVE AREA
24	(18)	CHARACTER	8	IHSAFPR0	FLOATING POINT REG 0
32	(20)	CHARACTER	8	IHSAFPR2	FLOATING POINT REG 2
40	(28)	CHARACTER	8	IHSAFPR4	FLOATING POINT REG 4
48	(30)	CHARACTER	8	IHSAFPR6	FLOATING POINT REG 6
56	(38)	CHARACTER	64	IHSAGPRS	GENERAL REGISTER SAVE AREA
120	(78)	CHARACTER	8	IHSAR078	RESERVED
128	(80)	ADDRESS	4	IHSAXSB	ADDRESS OF EXTENDED STATUS BLOCK (XSB)
132	(84)	BITSTRING	1	IHSAFLGS	IHSA FLAGS
	1... ....			IHSANSS	ONE OR MORE FRRS ESTABLISHED WITH EUT=YES
133	(85)	CHARACTER	3	IHSAR085	RESERVED
136	(88)	CHARACTER	64	IHSAARS	ACCESS REGISTER SAVE AREA.
136	(88)	UNSIGNED	4	IHSAAR0	ACCESS REGISTER 0 SAVE AREA.
140	(8C)	UNSIGNED	4	IHSAAR1	ACCESS REGISTER 1 SAVE AREA.
144	(90)	UNSIGNED	4	IHSAAR2	ACCESS REGISTER 2 SAVE AREA.
148	(94)	UNSIGNED	4	IHSAAR3	ACCESS REGISTER 3 SAVE AREA.
152	(98)	UNSIGNED	4	IHSAAR4	ACCESS REGISTER 4 SAVE AREA.
156	(9C)	UNSIGNED	4	IHSAAR5	ACCESS REGISTER 5 SAVE AREA.
160	(A0)	UNSIGNED	4	IHSAAR6	ACCESS REGISTER 6 SAVE AREA.
164	(A4)	UNSIGNED	4	IHSAAR7	ACCESS REGISTER 7 SAVE AREA.

Table 799. Structure IHSA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
168	(A8)	UNSIGNED	4	IHSAAR8	ACCESS REGISTER 8 SAVE AREA.
172	(AC)	UNSIGNED	4	IHSAAR9	ACCESS REGISTER 9 SAVE AREA.
176	(B0)	UNSIGNED	4	IHSAAR10	ACCESS REGISTER 10 SAVE AREA.
180	(B4)	UNSIGNED	4	IHSAAR11	ACCESS REGISTER 11 SAVE AREA.
184	(B8)	UNSIGNED	4	IHSAAR12	ACCESS REGISTER 12 SAVE AREA.
188	(BC)	UNSIGNED	4	IHSAAR13	ACCESS REGISTER 13 SAVE AREA.
192	(C0)	UNSIGNED	4	IHSAAR14	ACCESS REGISTER 14 SAVE AREA.
196	(C4)	UNSIGNED	4	IHSAAR15	ACCESS REGISTER 15 SAVE AREA.
200	(C8)	ADDRESS	4	IHSALSDP	LINKAGE STACK ENTRY DESCRIPTOR (LSED) POINTER.
204	(CC)	CHARACTER	4	IHSAR0CC	RESERVED
208	(D0)	CHARACTER	100	IHSAAFPR	FPRS 1,3,5,7-15,FPCR
208	(D0)	CHARACTER	96	*	FPRS 1,3,5,7-15
304	(130)	CHARACTER	4	IHSAFPCR	FPCR
308	(134)	ADDRESS	4	IHSAESSA@	Address of IHSA's ESSA
312	(138)	CHARACTER	64	IHSAG64H	HIGH ORDER HALVES OF 64-BIT GPRS
376	(178)	CHARACTER	16	IHSACPSW16	VALUE OF CURRENT PSW
392	(188)	CHARACTER	1408	IHSAFRRS	FRR STACK SAVEAREA
1800	(708)	CHARACTER	0	IHSAEND	DOUBLE WORD ALIGN

Table 800. Cross Reference for IHSA

Name	Offset	Hex Tag
IHSA	0	
IHSAAFPR	D0	
IHSAARS	88	
IHSAAR0	88	
IHSAAR1	8C	
IHSAAR10	B0	
IHSAAR11	B4	
IHSAAR12	B8	
IHSAAR13	BC	
IHSAAR14	C0	
IHSAAR15	C4	
IHSAAR2	90	
IHSAAR3	94	
IHSAAR4	98	
IHSAAR5	9C	
IHSAAR6	A0	
IHSAAR7	A4	
IHSAAR8	A8	
IHSAAR9	AC	
IHSACPSW	10	

Table 800. Cross Reference for IHSA (continued)

Name	Offset	Hex Tag
IHSACPSW16	178	
IHSACPUT	0	
IHSAEND	708	
IHSAESSA@	134	
IHSAFLGS	84	
IHSAFPCR	130	
IHSAFPRS	18	
IHSAFPR0	18	
IHSAFPR2	20	
IHSAFPR4	28	
IHSAFPR6	30	
IHSAFRRS	188	
IHSAGPRS	38	
IHSAG64H	138	
IHSALSDP	C8	
IHSANSS	84	80
IHSANTCB	8	
IHSAOTCB	C	
IHSAR0CC	CC	
IHSAR078	78	
IHSAR085	85	
IHSAXSB	80	

## IIT information

### IIT heading information

<b>Common name:</b>	IPL Information Table (IIT)
<b>Macro ID:</b>	IOSDIIT
<b>DSECT name:</b>	IIT, IITMLTNL, ITTDDTNL, ITTERPNL
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IIT Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: During MVSCP execution: Subpool 2. During IPL: IPL work space Key: During MVSCP execution user's key. During IPL: IPL work space
<b>Size:</b>	Variable length
<b>Created by:</b>	IPL Information Table (IIT) Build Routine



**Pointed to by:** IVTIITP field of the IVT (during IPL)

**Serialization:** None

**Function:** The IPL Information Table contains the MLT Name List, DDT Name List, and Resident ERP Name List.

## IIT mapping

Table 801. Structure IIT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	72	IIT	IPL Information Table (IIT)
0	(0)	CHARACTER	4	IITID	IIT identifier ('IIT ')
4	(4)	CHARACTER	8	IITDATE	Date of MVSCP execution
12	(C)	CHARACTER	5	IITTIME	Time of MVSCP execution
17	(11)	CHARACTER	3	*	Reserved, must be zero
20	(14)	ADDRESS	4	IITMLTLP	Pointer to the Module Lists Table (MLT) Name List
24	(18)	SIGNED	4	IITMLTCT	Number of MLT names in list
28	(1C)	ADDRESS	4	IITDDTLP	Pointer to the Device Descriptor Table (DDT) Name List
32	(20)	SIGNED	4	IITDDTCT	Number of DDT names in list
36	(24)	ADDRESS	4	IITERPLP	Pointer to the Resident ERP Name List
40	(28)	SIGNED	4	IITERPCT	Number of Resident ERP names in list
44	(2C)	CHARACTER	10	IITVERS	MVSCP version
54	(36)	CHARACTER	1	IITCMPT	Compatibility byte (used to detect if the level of MVS is compatible with the I/O configuration data built by the MVSCP)
55	(37)	CHARACTER	1	*	Reserved, must be zero
56	(38)	CHARACTER	16	*	Reserved, must be zero

Table 802. Structure IITMLTNL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	12	IITMLTNL(*)	MLT Name List
0	(0)	CHARACTER	8	IITMLTNM	MLT name
8	(8)	BITSTRING	1	IITMLTFL	Flags
	1... ....			IITMLTOP	MLT contains module names associated with a product that provides optional support for a device
	.111 1111		*		Reserved, must be zero
9	(9)	CHARACTER	3	*	Reserved, must be zero

Table 803. Structure IITDDTNL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	12	IITDDTNL(*)	DDT Name List
0	(0)	CHARACTER	8	IITDDTNM	DDT name
8	(8)	ADDRESS	4	IITDDTP	DDT address (set by IEAIPLO3)

Table 804. Structure IITERPNL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	12	IITERPNL(*)	Resident ERP Name List
0	(0)	CHARACTER	8	IITERPNM	Resident ERP entry point name
8	(8)	SIGNED	4	IITERPIN	Resident ERP Table index

Table 805. Constants for IIT

Len	Type	Value	Name	Description
The following constant is used to place an identifier in the IIT (field IITID).				
4	CHARACTER	IIT	IITCBID	IIT identifier

Table 806. Cross Reference for IIT

Name	Offset	Hex Tag
IIT	0	
IITCMPT	36	
IITDATE	4	
IITDDTCT	20	
IITDDTLP	1C	
IITDDTNL	0	
IITDDTNM	0	
IITDDTP	8	
IITERPCT	28	
IITERPIN	8	
IITERPLP	24	
IITERPNL	0	
IITERPNM	0	
IITID	0	
IITMLTCT	18	
IITMLTFL	8	
IITMLTLP	14	
IITMLTNL	0	
IITMLTNM	0	
IITMLTOP	8	80
IITTIME	C	
IITVERS	2C	

## IKJTAIE information

### IKJTAIE programming interface information

IKJTAIE is a programming interface.

## IKJTAIE heading information

**Common name:** TSO Terminal Attention Interrupt Element

**Macro ID:** IKJTAIE

**DSECT name:** TAIE

**Owning component:** Region Control Task (SC1CU)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: User  
Key: User  
Residency: below 16M

**Size:** X'D8' bytes

**Created by:** IEAVAR05

**Pointed to by:** TAXETAIE field of the TAXE data area.

**Serialization:** None

**Function:** This is the interface containing data for the user's attention exit.

## IKJTAIE mapping

Table 807. Structure TAIE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TAIE	
0	(0)	CHARACTER	2	TAIEMSGL	. MESSAGE LENGTH
2	(2)	CHARACTER	1	TAIETGET	. RET CODE FROM TGET ISSUED BY ATTN PROL LOG TO BE CHECKED BY USER ATTN RTN
3	(3)	CHARACTER	1	TAIEATTN	. TO BE USED BY THE TMP
4	(4)	SIGNED	4	TAIEIAD	. RIGHT HALF OF INTERRUPT PSW
4	(4)	BITSTRING	3		BYTES 0-2
7	(7)	BITSTRING	1	TAIEIAD3	BYTE 3 OF TAIEIAD
		.... ...1		TAIEIA64	"X'01'" WHEN ON, AMODE 64
8	(8)	CHARACTER	64	TAIERSAV	. Bits 32-63 of 64-bit GRs 0-15 when an interrupt to mainline or attention exit occurs
72	(48)	BITSTRING	16	TAIEPSWE	Interrupt PSWE
88	(58)	BITSTRING	128	TAIEG64	64-bit GRs 0-15 when an interrupt to mainline or attention exit occurs
88	(58)	X'D8'	0	TAIELNGT	"*-TAIE" LENGTH OF TAIE

Table 808. Cross Reference for IKJTAIE

Name	Offset	Hex Tag
TAIE	0	
TAIEATTN	3	
TAIEG64	58	
TAIEIAD	4	
TAIEIAD3	7	

Table 808. Cross Reference for IKJTAIE (continued)

Name	Offset	Hex Tag
TAIEIA64	7	1
TAIELNGT	58	D8
TAIEMSGL	0	
TAIEPSWE	48	
TAIERSAV	8	
TAIETGET	2	

## IMCB information

### IMCB heading information

**Common name:** SYSTEM RESOURES MANAGER USER I/O MEASUREMENT CONTROL BLOCK

**Macro ID:** IRAIMCB

**DSECT name:** IMCB

**Owning component:** SYSTEMS RESOURCE MANAGER (SC1CX)

**Eye-catcher ID:** IMCB  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 245  
Key: 0  
Residency: ABOVE 16M LINE

**Size:** 240 BYTES, INCLUDING USER LCH USAGE TABLE ENTRIES

**Created by:** IRARMiom

**Pointed to by:** N/A

**Serialization:** SRM LOCK

**Function:** THE IMCB CONTAINS THE I/O MEASUREMENT STATISTICS THAT THE SYSTEM RESOURCES MANAGERS MAINTAINS FOR USE IN I/O LOAD BALANCING

### IMCB mapping

Table 809. Structure IMCB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	IMCB	
0	(0)	CHARACTER	4	IMCBNAME	ACRONYM 'IMCB'
4	(4)	ADDRESS	4	IMCBFRST	ADDR OF FIRST ENTRY IN IMCB LPB TABLE
8	(8)	ADDRESS	4	IMCBLAST	ADDR OF LAST ENTRY IN IMCB LPB TABLE
12	(C)	BITSTRING	1	IMCBFLGS	IMCB FLAGS
		1... ....		IMCBINIT	IMCB LPB TABLE INITIALIZED
		.1... ....		IMCBSLPU	SIGNIFICANT USER OF ONE OR MORE OUT-OF-BALANCE LPB'S
		..1. ....		IMCBOVLP	USER ACTIVE ON OVERUTIL LPB

Table 809. Structure IMCB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		IMCBUNLP	USER ACTIVE ON UNDERUTIL LPB
		.... 1111		IMCBRSV2	RESERVED
13	(D)	CHARACTER	3	IMCBRSV	RESERVED
16	(10)	CHARACTER	8	IMCBNTRY(*)	ARRAY OF ENTRIES FOR LPB'S

Table 810. Structure IMBENTY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	8	IMBENTY	
0	(0)	UNSIGNED	4	IMBCONN B	CONNECT TIME BASE IN 128 MICRO SECONDS
4	(4)	SIGNED	2	IMBCONN P	PERCENT CONNECT TIME IN PERCENT TIMES 100
6	(6)	SIGNED	2	IMBLPBO	OFFSET TO LOGICAL PATH BLOCK

Table 811. Cross Reference for IMCB

Name	Offset	Hex	Tag
IMBCONN B	0		
IMBCONN P	4		
IMBENTY	0		
IMBLPBO	6		
IMCB	0		
IMCBFLGS	C		
IMCBFRST	4		
IMCBINIT	C		80
IMCBLAST	8		
IMCBNAME	0		
IMCBNTRY	10		
IMCBOVLP	C		20
IMCBRSV	D		
IMCBRSV2	C		0F
IMCBSLPU	C		40
IMCBUNLP	C		10

## IMDMEDIT information

### IMDMEDIT programming interface information

IMDMEDIT is a programming interface.

### IMDMEDIT heading information

**Common name:** GTF Event Identifier Constants

**Macro ID:** IMDMEDIT

**DSECT name:** None

**Owning component:** Generalized Trace Facility (SC118)

**Eye-catcher ID:** None

**Storage attributes:** Subpool: N/A  
Key: N/A

**Size:** N/A  
FREQUENCY: N/A

**Created by:** N/A  
INITIALIZED BY: N/A

**Pointed to by:** N/A

**Serialization:** None

**Function:** Map the Event Identifier (EID) values associated with IBM system and subsystem events. The macro is designed to be used by IBM-supplied format appendages and user-supplied exit modules.  
This mapping provides documentation of the EIDs assigned to IBM system and subsystem events.

## IMDMEDIT mapping

Table 812. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	IMDMSSM	"0" OS SSM FOR COMPATIBILITY
0	(0)	X'0'	0	IMDMSSM1	"0" SSM INTERRUPT
0	(0)	X'0'	0	IMDMPIPG	"0" PAGE FAULT PROGRAM INTERRUPT
		.... ..1		IMDMDSP1	"X'0001'" DISPATCHER
0	(0)	X'1'	0	IEADISP1	"IMDMDSP1" DISPATCHER
		.... ..1.		IMDMDSP2	"X'0002'" DISPATCHER
0	(0)	X'2'	0	IEADISP2	"IMDMDSP2" DISPATCHER
		.... ..11		IMDMDSP	"X'0003'" DISPATCHER
		.... ..11		IMDMDSP3	"X'0003'" DISPATCHER
0	(0)	X'3'	0	IEADISP3	"IMDMDSP3" DISPATCHER
0	(0)	BITSTRING	0	IMDMDSP4	"X'1004'" SVC EXIT PROLOG DISPATCH
0	(0)	X'1004'	0	IEADISP4	"IMDMDSP4" EXIT PROLOG DISPATCH
0	(0)	BITSTRING	0	IMDM SVC	"X'1000'" SVC INTERRUPT
0	(0)	X'1000'	0	IEASVCH	"IMDM SVC" SVC INTERRUPT
0	(0)	BITSTRING	0	IMDMPCI	"X'2100'" PCI I/O INTERRUPT
0	(0)	X'2100'	0	IEPCPI	"IMDMPCI" PCI I/O INTERRUPT
0	(0)	BITSTRING	0	IMDMPCIX	"X'2101'" PCI I/O INTERRUPT SUMMARY RCD
0	(0)	X'2101'	0	IEPCPIX	"IMDMPCIX" PCI I/O INTERRUPT SUMMARY RCD
0	(0)	BITSTRING	0	IMDMSRM	"X'4001'" SRM
0	(0)	X'4001'	0	IRASRM	"IMDMSRM" SRM
0	(0)	BITSTRING	0	IMDMSTAE	"X'4002'" RTM

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'4002'	0	IEASTAE	"IMDMSTAE" RTM
0	(0)	BITSTRING	0	IMDMFRR	"X'4003'" RTM
0	(0)	X'4003'	0	IEAFRR	"IMDMFRR" RTM
0	(0)	BITSTRING	0	IMDMSLSD	"X'4004'" RTM/SLIP STANDARD RECORD
0	(0)	X'4004'	0	IEAVSLSD	"IMDMSLSD" RTM/SLIP STANDARD RECORD
0	(0)	BITSTRING	0	IMDMSLSU	"X'4005'" RTM/SLIP STANDARD+USER RECORD
0	(0)	X'4005'	0	IEAVLSLU	"IMDMSLSU" RTM/SLIP STANDARD+USER RECORD
0	(0)	BITSTRING	0	IMDMSLUR	"X'4006'" RTM/SLIP USER RECORD
0	(0)	X'4006'	0	IEAVSLUR	"IMDMSLUR" RTM/SLIP USER RECORD
0	(0)	BITSTRING	0	IMDMSIO	"X'5100'" SIO OPERATION
0	(0)	X'5100'	0	IECSIO	"IMDMSIO" SIO OPERATION
0	(0)	BITSTRING	0	IMDMEOS	"X'5101'" IOS
0	(0)	X'5101'	0	IECEOS	"IMDMEOS" IOS
0	(0)	BITSTRING	0	IMDMCSCH	"X'5102'" CLEAR SUBCHANNEL GTF RECORD
0	(0)	X'5102'	0	IECCSCH	"IMDMCSCH" CLEAR SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMHSCH	"X'5103'" HALT SUBCHANNEL GTF RECORD
0	(0)	X'5103'	0	IECHSCH	"IMDMHSCH" HALT SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMMSCH	"X'5104'" MODIFY SUBCHANNEL GTF RECORD
0	(0)	X'5104'	0	IECMSCH	"IMDMMSCH" MODIFY SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMSSCH	"X'5105'" START SUBCHANNEL GTF RECORD
0	(0)	X'5105'	0	IECSSCH	"IMDMSSCH" START SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMRSCH	"X'5106'" RESUME SUBCHANNEL GTF RECORD
0	(0)	X'5106'	0	IECRSCH	"IMDMRSCH" RESUME SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMEOSX	"X'5107'" EOS SUMMARY RECORD
0	(0)	X'5107'	0	IECEOSX	"IMDMEOSX" EOS SUMMARY RECORD
0	(0)	BITSTRING	0	IMDMXSCH	"X'5108'" CANCEL SUBCHANNEL GTF RECORD
0	(0)	X'5108'	0	IECXSCH	"IMDMXSCH" CANCEL SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMINTG	"X'5109'" Interrogate GTF Record
0	(0)	X'5109'	0	IECINTG	"IMDMINTG" Interrogate GTF Record
0	(0)	BITSTRING	0	IMDMSYNS	"X'510A'" Synchronous I/O Start
0	(0)	X'510A'	0	IECSYNS	"IMDMSYNS" Synchronous I/O Start
0	(0)	BITSTRING	0	IMDMSYNE	"X'510B'" Synchronous I/O End
0	(0)	X'510B'	0	IECSYNE	"IMDMSYNE" Synchronous I/O End
0	(0)	BITSTRING	0	IMDMI02	"X'5200'" I/O INTERRUPT
0	(0)	X'5200'	0	IECI02	"IMDMI02" I/O INTERRUPT
0	(0)	BITSTRING	0	IMDMI01	"X'5201'" I/O Inter w/concurrent sense
0	(0)	X'5201'	0	IECI01	"IMDMI01" I/O Inter w/concurrent sense
0	(0)	BITSTRING	0	IMDMI01X	"X'5202'" I/O INTERRUPT SUMMARY RECORD

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'5202'	0	IECI01X	"IMDMI01X" I/O INTERRUPT SUMMARY RECORD
0	(0)	BITSTRING	0	IMDMCS1X	"X'5203'" CS INTERRUPT SUMMARY RECORD
0	(0)	X'5203'	0	IECCS1X	"IMDMCS1X" CS INTERRUPT SUMMARY RECORD
0	(0)	BITSTRING	0	IMDMPI	"X'6101'" PROGRAM INTERRUPT
0	(0)	X'6101'	0	IEAPINT	"IMDMPI" PROGRAM INTERRUPT
0	(0)	BITSTRING	0	IMDMTINT	"X'6200'" PFLIH
0	(0)	X'6200'	0	IEATINT	"IMDMTINT" PFLIH
0	(0)	BITSTRING	0	IMDMEXT	"X'6201'" EXTERNAL INTERRUPT
0	(0)	X'6201'	0	IEAEINT	"IMDMEXT" EXTERNAL INTERRUPT
0	(0)	BITSTRING	0	IMDMTP1	"X'8100'" TPIOS
0	(0)	X'8100'	0	ISPTPI01	"IMDMTP1" TPIOS
0	(0)	BITSTRING	0	IMDMTP2	"X'8200'" TPIOS
0	(0)	X'8200'	0	ISPTPI02	"IMDMTP2" TPIOS
0	(0)	BITSTRING	0	IMDE5E2	"X'E5E2'" Netview
0	(0)	BITSTRING	0	IMDE5E4	"X'E5E4'" TCP/IP for MVS
0	(0)	BITSTRING	0	IMDE5E5	"X'E5E5'" VTAM SAW and PD PIU
0	(0)	BITSTRING	0	IMDE5E6	"X'E5E6'" Netview
0	(0)	BITSTRING	0	IMDE5E7	"X'E5E7'" Netview
0	(0)	BITSTRING	0	IMDE5E8	"X'E5E8'" Netview
0	(0)	BITSTRING	0	IMDE5E9	"X'E5E9'" MQ Series
0	(0)	BITSTRING	0	IMDE5EA	"X'E5EA'" MQ Series
0	(0)	BITSTRING	0	IMDE5EB	"X'E5EB'" MQ Series
0	(0)	BITSTRING	0	IMDE5EC	"X'E5EC'" MQ Series
0	(0)	BITSTRING	0	IMDE5ED	"X'E5ED'" MQ Series
0	(0)	BITSTRING	0	IMDE5EE	"X'E5EE'" MQ Series
0	(0)	BITSTRING	0	IMDE5EF	"X'E5EF'" Netview PPI
0	(0)	BITSTRING	0	IMDE5F0	"X'E5F0'" Host Command Facilities
0	(0)	BITSTRING	0	IMDE5F1	"X'E5F1'" VM Group Control Subsystem
0	(0)	BITSTRING	0	IMDE5F4	"X'E5F4'" Netview Session Monitor
0	(0)	BITSTRING	0	IMDE5F5	"X'E5F5'" Netview Session Monitor
0	(0)	BITSTRING	0	IMDE5F6	"X'E5F6'" Netview
0	(0)	BITSTRING	0	IMDOMGM	"X'E5F7'" OMEGAMON for DB2
0	(0)	BITSTRING	0	IMDE5FA	"X'E5FA'" ALCS
0	(0)	BITSTRING	0	IMDE5FB	"X'E5FB'" ALCS
0	(0)	BITSTRING	0	IEFDB400EC	"X'EF1D'" DYNALLOD
0	(0)	BITSTRING	0	IEFDB400EB	"X'EF1E'" DYNALLOD
0	(0)	BITSTRING	0	IEFDB400EA	"X'EF1F'" DYNALLOD
0	(0)	BITSTRING	0	IMDLANR1	"X'EF20'" LANRES
0	(0)	BITSTRING	0	IMDLANR2	"X'EF21'" LANRES
0	(0)	BITSTRING	0	IMDLANR3	"X'EF22'" LANRES
0	(0)	BITSTRING	0	IMDLANR4	"X'EF23'" LANRES
0	(0)	BITSTRING	0	IMDLANR5	"X'EF24'" LANRES
0	(0)	BITSTRING	0	IMDLANR6	"X'EF25'" LANRES
0	(0)	BITSTRING	0	IMDLANR7	"X'EF26'" LANRES



Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IMDLANR8	"X'EF27'" LANRES
0	(0)	BITSTRING	0	IMDLANR9	"X'EF28'" LANRES
0	(0)	BITSTRING	0	IMDLANRA	"X'EF29'" LANRES
0	(0)	BITSTRING	0	IMDLANRB	"X'EF2A'" LANRES
0	(0)	BITSTRING	0	IMDLANRC	"X'EF2B'" LANRES
0	(0)	BITSTRING	0	IMDLANRD	"X'EF2C'" LANRES
0	(0)	BITSTRING	0	IMDLANRE	"X'EF2D'" LANRES
0	(0)	BITSTRING	0	IMDLANRF	"X'EF2E'" LANRES
0	(0)	BITSTRING	0	IMDLANRG	"X'EF2F'" LANRES
0	(0)	BITSTRING	0	IMDLANRH	"X'EF30'" LANRES
0	(0)	BITSTRING	0	IMDLANRI	"X'EF31'" LANRES
0	(0)	BITSTRING	0	IMDLANRJ	"X'EF32'" LANRES
0	(0)	BITSTRING	0	IMDLANRK	"X'EF33'" LANRES
0	(0)	BITSTRING	0	IMDLANRL	"X'EF34'" LANRES
0	(0)	BITSTRING	0	IMDLANRM	"X'EF35'" LANRES
0	(0)	BITSTRING	0	IMDLANRN	"X'EF36'" LANRES
0	(0)	BITSTRING	0	IMDLANRO	"X'EF37'" LANRES
0	(0)	BITSTRING	0	IMDLANRP	"X'EF38'" LANRES
0	(0)	BITSTRING	0	IMDLANRQ	"X'EF39'" LANRES
0	(0)	BITSTRING	0	IMDLANRR	"X'EF3A'" LANRES
0	(0)	BITSTRING	0	IMDLANRS	"X'EF3B'" LANRES
0	(0)	BITSTRING	0	IMDLANRT	"X'EF3C'" LANRES
0	(0)	BITSTRING	0	IMDLANRU	"X'EF3D'" LANRES
0	(0)	BITSTRING	0	IMDLANRV	"X'EF3E'" LANRES
0	(0)	BITSTRING	0	IMDLANRW	"X'EF3F'" LANRES
0	(0)	BITSTRING	0	IMDEF42	"X'EF42'" IBM Client Input Output Sockets
0	(0)	BITSTRING	0	IMDEF43	"X'EF43'" MVS System Logger
0	(0)	BITSTRING	0	IMDEF44	"X'EF44'" RACF
0	(0)	BITSTRING	0	IMDEF45	"X'EF45'" RACF
0	(0)	BITSTRING	0	IMDEF47	"X'EF47'" Open Systems Interconnection File Service
0	(0)	BITSTRING	0	IMDEF48	"X'EF48'" MVS IOS
0	(0)	BITSTRING	0	IMDEF49	"X'EF49'" Bulk Data Transfer
0	(0)	BITSTRING	0	IMDEF52	"X'EF52'" Netview Distribution Manager
0	(0)	BITSTRING	0	IMDOSIC	"X'EF53'" Open Systems Interconnection Communications Subsystem
0	(0)	BITSTRING	0	IMDFSIT4	"X'EF54'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT5	"X'EF55'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT6	"X'EF56'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT7	"X'EF57'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT8	"X'EF58'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT9	"X'EF59'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITA	"X'EF5A'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITB	"X'EF5B'" FSI TRACE

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IMDFSITC	"X'EF5C'" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITD	"X'EF5D'" FSI TRACE
0	(0)	BITSTRING	0	IMDDB2VT	"X'EF5F'" DB2/VSAM TRANSPARENCY
0	(0)	BITSTRING	0	IMDEF60	"X'EF60'" JES 3
0	(0)	BITSTRING	0	IMDEF62	"X'EF62'" Dynamic Output SVC installation exit
0	(0)	BITSTRING	0	IMDEF63	"X'EF63'" Converter/Interpreter installation exit
0	(0)	BITSTRING	0	IMDVSM	"X'EF65'" VIRTUAL STORAGE MANAGER
0	(0)	BITSTRING	0	IMDCICS	"X'EF6C'" CICS
0	(0)	BITSTRING	0	IMDEF6D	"X'EF6D'" Netware
0	(0)	BITSTRING	0	IMDEF6E	"X'EF6E'" Netware
0	(0)	BITSTRING	0	IMDEF6F	"X'EF6F'" Netware
0	(0)	BITSTRING	0	IMDEF70	"X'EF70'" Netware
0	(0)	BITSTRING	0	IMDEF71	"X'EF71'" Netware
0	(0)	BITSTRING	0	IMDEF72	"X'EF72'" Netware
0	(0)	BITSTRING	0	IMDEF73	"X'EF73'" Netware
0	(0)	BITSTRING	0	IMDEF74	"X'EF74'" Netware
0	(0)	BITSTRING	0	IMDEF75	"X'EF75'" Netware
0	(0)	BITSTRING	0	IMDEF76	"X'EF76'" Netware
0	(0)	BITSTRING	0	IMDEF77	"X'EF77'" Netware
0	(0)	BITSTRING	0	IMDEF78	"X'EF78'" Netware
0	(0)	BITSTRING	0	IMDEF79	"X'EF79'" Netware
0	(0)	BITSTRING	0	IMDEF7A	"X'EF7A'" Netware
0	(0)	BITSTRING	0	IMDEF7B	"X'EF7B'" Netware
0	(0)	BITSTRING	0	IMDEF7C	"X'EF7C'" Netware
0	(0)	BITSTRING	0	IMDEF7D	"X'EF7D'" Netware
0	(0)	BITSTRING	0	IMDEF7E	"X'EF7E'" Netware
0	(0)	BITSTRING	0	IMDEF7F	"X'EF7F'" Netware
0	(0)	BITSTRING	0	IMDEF80	"X'EF80'" Netware
0	(0)	BITSTRING	0	IMDEF81	"X'EF81'" Netware
0	(0)	BITSTRING	0	IMDEF82	"X'EF82'" Netware
0	(0)	BITSTRING	0	IMDEF83	"X'EF83'" Netware
0	(0)	BITSTRING	0	IMDEF84	"X'EF84'" Netware
0	(0)	BITSTRING	0	IMDEF85	"X'EF85'" Netware
0	(0)	BITSTRING	0	IMDEF86	"X'EF86'" Netware
0	(0)	BITSTRING	0	IMDEF87	"X'EF87'" Netware
0	(0)	BITSTRING	0	IMDEF88	"X'EF88'" Netware
0	(0)	BITSTRING	0	IMDEF89	"X'EF89'" Netware
0	(0)	BITSTRING	0	IMDEF8A	"X'EF8A'" Netware
0	(0)	BITSTRING	0	IMDEF8B	"X'EF8B'" Netware
0	(0)	BITSTRING	0	IMDEF8C	"X'EF8C'" Netware
0	(0)	BITSTRING	0	IMDVTMDS	"X'EF90'" VTAM
0	(0)	BITSTRING	0	IMDTCAM0	"X'EFA0'" TCAM
0	(0)	BITSTRING	0	IMDTCAM1	"X'EFA1'" TCAM
0	(0)	BITSTRING	0	IMDTCAM2	"X'EFA2'" TCAM

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IMDTCAM3	"X'EFA3'" TCAM
0	(0)	BITSTRING	0	IMDTCAM4	"X'EFA4'" TCAM
0	(0)	BITSTRING	0	IMDTCAM5	"X'EFA5'" TCAM
0	(0)	BITSTRING	0	IMDTCAM6	"X'EFA6'" TCAM
0	(0)	BITSTRING	0	IMDTCAM7	"X'EFA7'" TCAM
0	(0)	BITSTRING	0	IMDTCAM8	"X'EFA8'" TCAM
0	(0)	BITSTRING	0	IMDTCAM9	"X'EFA9'" TCAM
0	(0)	BITSTRING	0	IMDTCAMA	"X'EFAA'" VTAM VM/SNA Console Services (VSCS)
0	(0)	BITSTRING	0	IMDTCAMB	"X'EFAB'" DFSMS Media Manager
0	(0)	BITSTRING	0	IMDGPDO0	"X'EFAC'" NetSpool
0	(0)	BITSTRING	0	IMDEFAD	"X'EFAD'" VM Group Control Subsystem
0	(0)	BITSTRING	0	IMDEFAE	"X'EFAE'" VM Group Control Subsystem RSCS
0	(0)	BITSTRING	0	IMDGPDO1	"X'EFAF'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO2	"X'EFB0'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO3	"X'EFB1'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO4	"X'EFB2'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO5	"X'EFB3'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO6	"X'EFB4'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO7	"X'EFB5'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO8	"X'EFB6'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO9	"X'EFB7'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO10	"X'EFB8'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO11	"X'EFB9'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO12	"X'EFBA'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO13	"X'EFBB'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO14	"X'EFBC'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO15	"X'EFBD'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO16	"X'EFBE'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO17	"X'EFBF'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO18	"X'EFC0'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO19	"X'EFC1'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO20	"X'EFC2'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO21	"X'EFC3'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO22	"X'EFC4'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO23	"X'EFC5'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO24	"X'EFC6'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO25	"X'EFC7'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO26	"X'EFC8'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO27	"X'EFC9'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO28	"X'EFCA'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO29	"X'EFCB'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO30	"X'EFCC'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO31	"X'EFGD'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPDO32	"X'EFCE'" RESERVED FOR GPD

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	BITSTRING	0	IMDGPD33	"X'EFCF'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD34	"X'EF00'" Print Service Facility/MVS
0	(0)	BITSTRING	0	IMDGPD35	"X'EF01'" Print Service Facility/MVS
0	(0)	BITSTRING	0	IMDGPD36	"X'EF02'" Print Service Facility/MVS
0	(0)	BITSTRING	0	IMDGPD37	"X'EF03'" Print Service Facility/MVS
0	(0)	BITSTRING	0	IMDGPD38	"X'EF04'" Print Service Facility/MVS
0	(0)	BITSTRING	0	IMDGPD39	"X'EF05'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD40	"X'EF06'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD41	"X'EF07'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD42	"X'EF08'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD43	"X'EF09'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD44	"X'EF0A'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD45	"X'EF0B'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD46	"X'EF0C'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD47	"X'EF0D'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD48	"X'EF0E'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD49	"X'EF0F'" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD50	"X'EFE0'" RESERVED FOR GPD
0	(0)	BITSTRING	0	ISTVIEID	"X'EFE1'" ACF/VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTHEID	"X'EFE2'" TSO/VTAM TGET/TPUT TRACE
0	(0)	BITSTRING	0	ISTTREID	"X'EFE3'" VTAM RESERVED
0	(0)	BITSTRING	0	ISTTDEID	"X'EFE4'" ACF/VTAM NCP LINE TYPE TRACE
0	(0)	BITSTRING	0	IMDEFE5	"X'EFE5'" JES2
0	(0)	BITSTRING	0	IMDEFE6	"X'EFE6'" JES2
0	(0)	BITSTRING	0	IMDEFE7	"X'EFE7'" JES2
0	(0)	BITSTRING	0	IMDEFE8	"X'EFE8'" JES2
0	(0)	BITSTRING	0	IMDEFE9	"X'EFE9'" JES2
0	(0)	BITSTRING	0	IMDEFEA	"X'EFEA'" JES2
0	(0)	BITSTRING	0	IMDEFEB	"X'EFEB'" JES2
0	(0)	BITSTRING	0	IMDEFEC	"X'EFEC'" JES2
0	(0)	BITSTRING	0	IMDEFED	"X'EFED'" JES2
0	(0)	BITSTRING	0	IMDEFEE	"X'EFEE'" JES2
0	(0)	BITSTRING	0	ISTTPEID	"X'EFEF'" ACF/VTAM USER BUFFER CONTENTS TRACE
0	(0)	BITSTRING	0	ISTRPEID	"X'EFF0'" ACF/VTAM SMS(BUFFER USE) TRACE
0	(0)	BITSTRING	0	ISTCLEID	"X'EFF1'" ACF/VTAM COMPONENT BUFFER CONTENTS TRACE
0	(0)	BITSTRING	0	ISTLNEID	"X'EFF2'" ACF/VTAM NCP LINE OR TG TRACE
0	(0)	BITSTRING	0	IGGSP002	"X'EFF3'" SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP008	"X'EFF4'" SAM/PAM/DAM
0	(0)	BITSTRING	0	IDAAM01	"X'EFF5'" VSAM
0	(0)	BITSTRING	0	IGGSP112	"X'EFF6'" SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP215	"X'EFF7'" SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP119	"X'EFF8'" SAM/PAM/DAM

Table 812. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	IGGSP235	"X' EFF9' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP239	"X' EFFA' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP145	"X' EFFB' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP251	"X' EFFC' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP451	"X' EFFD' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP169	"X' EFFE' " SAM/PAM/DAM
0	(0)	BITSTRING	0	IMDMDMA1	"X' EFFF' " OPEN/CLOSE/EOV
0	(0)	BITSTRING	0	IECPCLD	"X' F101' " PCIE LOAD
0	(0)	BITSTRING	0	IECPCST	"X' F201' " PCIE STORE
0	(0)	BITSTRING	0	IECPCIN	"X' F301' " PCIE INT
0	(0)	BITSTRING	0	IECPCDM	"X' F401' " PCIE DEMUX

Table 813. Cross Reference for IMDMEDIT

Name	Offset	Hex Tag
IDAAM01	0	EFF5
IEADISP1	0	1
IEADISP2	0	2
IEADISP3	0	3
IEADISP4	0	1004
IEAEINT	0	6201
IEAFRR	0	4003
IEAPINT	0	6101
IEASTAE	0	4002
IEASVCH	0	1000
IEATINT	0	6200
IEAVSLSD	0	4004
IEAVLSLU	0	4005
IEAVSLUR	0	4006
IECCSCH	0	5102
IECCS1X	0	5203
IECE0S	0	5101
IECE0SX	0	5107
IECHSCH	0	5103
IECINTG	0	5109
IECI01	0	5201
IECI01X	0	5202
IECI02	0	5200
IECMSCH	0	5104
IECPCDM	0	F401
IECPCI	0	2100

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IEPCIN	0	F301
IEPCIX	0	2101
IEPCLD	0	F101
IEPCST	0	F201
IECRSCH	0	5106
IECSIO	0	5100
IECSSCH	0	5105
IECSYNE	0	510B
IECSYNS	0	510A
IECXSCH	0	5108
IEFDB400EA	0	EF1F
IEFDB400EB	0	EF1E
IEFDB400EC	0	EF1D
IGGSP002	0	EFF3
IGGSP008	0	EFF4
IGGSP112	0	EFF6
IGGSP119	0	EFF8
IGGSP145	0	EFFB
IGGSP169	0	EFFE
IGGSP215	0	EFF7
IGGSP235	0	EFF9
IGGSP239	0	EFFA
IGGSP251	0	EFFC
IGGSP451	0	EFFD
IMDCICS	0	EF6C
IMDDB2VT	0	EF5F
IMDEFAD	0	EFAD
IMDEFAE	0	EFAE
IMDEFEA	0	EFEA
IMDEFEB	0	EFEB
IMDEFEC	0	EFEC
IMDEFED	0	EFED
IMDEFEE	0	EFEE
IMDEFE5	0	EFE5
IMDEFE6	0	EFE6
IMDEFE7	0	EFE7
IMDEFE8	0	EFE8
IMDEFE9	0	EFE9
IMDEF42	0	EF42

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDEF43	0	EF43
IMDEF44	0	EF44
IMDEF45	0	EF45
IMDEF47	0	EF47
IMDEF48	0	EF48
IMDEF49	0	EF49
IMDEF52	0	EF52
IMDEF6D	0	EF6D
IMDEF6E	0	EF6E
IMDEF6F	0	EF6F
IMDEF60	0	EF60
IMDEF62	0	EF62
IMDEF63	0	EF63
IMDEF7A	0	EF7A
IMDEF7B	0	EF7B
IMDEF7C	0	EF7C
IMDEF7D	0	EF7D
IMDEF7E	0	EF7E
IMDEF7F	0	EF7F
IMDEF70	0	EF70
IMDEF71	0	EF71
IMDEF72	0	EF72
IMDEF73	0	EF73
IMDEF74	0	EF74
IMDEF75	0	EF75
IMDEF76	0	EF76
IMDEF77	0	EF77
IMDEF78	0	EF78
IMDEF79	0	EF79
IMDEF8A	0	EF8A
IMDEF8B	0	EF8B
IMDEF8C	0	EF8C
IMDEF80	0	EF80
IMDEF81	0	EF81
IMDEF82	0	EF82
IMDEF83	0	EF83
IMDEF84	0	EF84
IMDEF85	0	EF85
IMDEF86	0	EF86

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDEF87	0	EF87
IMDEF88	0	EF88
IMDEF89	0	EF89
IMDE5EA	0	E5EA
IMDE5EB	0	E5EB
IMDE5EC	0	E5EC
IMDE5ED	0	E5ED
IMDE5EE	0	E5EE
IMDE5EF	0	E5EF
IMDE5E2	0	E5E2
IMDE5E4	0	E5E4
IMDE5E5	0	E5E5
IMDE5E6	0	E5E6
IMDE5E7	0	E5E7
IMDE5E8	0	E5E8
IMDE5E9	0	E5E9
IMDE5FA	0	E5FA
IMDE5FB	0	E5FB
IMDE5F0	0	E5F0
IMDE5F1	0	E5F1
IMDE5F4	0	E5F4
IMDE5F5	0	E5F5
IMDE5F6	0	E5F6
IMDFSITA	0	EF5A
IMDFSITB	0	EF5B
IMDFSITC	0	EF5C
IMDFSITD	0	EF5D
IMDFSIT4	0	EF54
IMDFSIT5	0	EF55
IMDFSIT6	0	EF56
IMDFSIT7	0	EF57
IMDFSIT8	0	EF58
IMDFSIT9	0	EF59
IMDGPD00	0	EFAC
IMDGPD01	0	EFAF
IMDGPD02	0	EFB0
IMDGPD03	0	EFB1
IMDGPD04	0	EFB2
IMDGPD05	0	EFB3



Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDGPDP06	0	EFB4
IMDGPDP07	0	EFB5
IMDGPDP08	0	EFB6
IMDGPDP09	0	EFB7
IMDGPDP10	0	EFB8
IMDGPDP11	0	EFB9
IMDGPDP12	0	EFBA
IMDGPDP13	0	EFBB
IMDGPDP14	0	EFBC
IMDGPDP15	0	EFBD
IMDGPDP16	0	EFBE
IMDGPDP17	0	EFBF
IMDGPDP18	0	EFC0
IMDGPDP19	0	EFC1
IMDGPDP20	0	EFC2
IMDGPDP21	0	EFC3
IMDGPDP22	0	EFC4
IMDGPDP23	0	EFC5
IMDGPDP24	0	EFC6
IMDGPDP25	0	EFC7
IMDGPDP26	0	EFC8
IMDGPDP27	0	EFC9
IMDGPDP28	0	EFCA
IMDGPDP29	0	EFCB
IMDGPDP30	0	EFCC
IMDGPDP31	0	EFCD
IMDGPDP32	0	EFCE
IMDGPDP33	0	EFCF
IMDGPDP34	0	EFD0
IMDGPDP35	0	EFD1
IMDGPDP36	0	EFD2
IMDGPDP37	0	EFD3
IMDGPDP38	0	EFD4
IMDGPDP39	0	EFD5
IMDGPDP40	0	EFD6
IMDGPDP41	0	EFD7
IMDGPDP42	0	EFD8
IMDGPDP43	0	EFD9
IMDGPDP44	0	EFDA

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDGP45	0	EFDB
IMDGP46	0	EFDC
IMDGP47	0	EFDD
IMDGP48	0	EFDE
IMDGP49	0	EFDF
IMDGP50	0	EFE0
IMDLANRA	0	EF29
IMDLANRB	0	EF2A
IMDLANRC	0	EF2B
IMDLANRD	0	EF2C
IMDLANRE	0	EF2D
IMDLANRF	0	EF2E
IMDLANRG	0	EF2F
IMDLANRH	0	EF30
IMDLANRI	0	EF31
IMDLANRJ	0	EF32
IMDLANRK	0	EF33
IMDLANRL	0	EF34
IMDLANRM	0	EF35
IMDLANRN	0	EF36
IMDLANRO	0	EF37
IMDLANRP	0	EF38
IMDLANRQ	0	EF39
IMDLANRR	0	EF3A
IMDLANRS	0	EF3B
IMDLANRT	0	EF3C
IMDLANRU	0	EF3D
IMDLANRV	0	EF3E
IMDLANRW	0	EF3F
IMDLANR1	0	EF20
IMDLANR2	0	EF21
IMDLANR3	0	EF22
IMDLANR4	0	EF23
IMDLANR5	0	EF24
IMDLANR6	0	EF25
IMDLANR7	0	EF26
IMDLANR8	0	EF27
IMDLANR9	0	EF28
IMDMCSCH	0	5102

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDMCS1X	0	5203
IMDMDMA1	0	FFFF
IMDMDSP	0	3
IMDMDSP1	0	1
IMDMDSP2	0	2
IMDMDSP3	0	3
IMDMDSP4	0	1004
IMDMEOS	0	5101
IMDMEOSX	0	5107
IMDMEXT	0	6201
IMDMFRR	0	4003
IMDMHSCH	0	5103
IMDMINTG	0	5109
IMDMI01	0	5201
IMDMI01X	0	5202
IMDMI02	0	5200
IMDMMSCH	0	5104
IMDMPCI	0	2100
IMDMPCIX	0	2101
IMDMPI	0	6101
IMDMPIPG	0	0
IMDMRSCH	0	5106
IMDMSIO	0	5100
IMDMSLSD	0	4004
IMDMSLSU	0	4005
IMDMSLUR	0	4006
IMDMSRM	0	4001
IMDMSSCH	0	5105
IMDMSSM	0	0
IMDMSSM1	0	0
IMDMSTAE	0	4002
IMDMSVC	0	1000
IMDMSYNE	0	510B
IMDMSYNS	0	510A
IMDMTINT	0	6200
IMDMTP1	0	8100
IMDMTP2	0	8200
IMDMXSCH	0	5108
IMDOMGM	0	E5F7

Table 813. Cross Reference for IMDMEDIT (continued)

Name	Offset	Hex Tag
IMDOSIC	0	EF53
IMDTCAMA	0	EFAA
IMDTCAMB	0	EFA8
IMDTCAM0	0	EFA0
IMDTCAM1	0	EFA1
IMDTCAM2	0	EFA2
IMDTCAM3	0	EFA3
IMDTCAM4	0	EFA4
IMDTCAM5	0	EFA5
IMDTCAM6	0	EFA6
IMDTCAM7	0	EFA7
IMDTCAM8	0	EFA8
IMDTCAM9	0	EFA9
IMDVSM	0	EF65
IMDVTMDS	0	EF90
IRASRM	0	4001
ISPTPI01	0	8100
ISPTPI02	0	8200
ISTCLEID	0	EFF1
ISTLNEID	0	EFF2
ISTRPEID	0	EFF0
ISTTDEID	0	EFE4
ISTTHEID	0	EFE2
ISTTPEID	0	EFEF
ISTTREID	0	EFE3
ISTVIEID	0	EFE1

## INF information

### INF heading information

<b>Common name:</b>	VSM Information Message Table
<b>Macro ID:</b>	IHAINF
<b>DSECT name:</b>	INFLIST
<b>Owning component:</b>	Virtual Storage Manager (SC1CH)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 245 Key: 0
<b>Size:</b>	48 bytes

**Created by:** IGVVSERR  
**Pointed to by:** CVTQMSG  
**Serialization:** Compare and Swap  
**Function:** Contains information about an ABEND which is used to generate message IEA705I

## INF mapping

Table 814. Structure INFLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	48	INFLIST	INFORMATION LIST
0	(0)	ADDRESS	4	INFASCB	ASCB ADDRESS
4	(4)	CHARACTER	44	INFBODY	MAIN BODY OF ENTRY
4	(4)	ADDRESS	4	INFTCB	CURRENT TCB
8	(8)	ADDRESS	4	INFBADDR	VSM CALLERS RETURN ADDRESS
12	(C)	SIGNED	2	INFVARCT	COUNT OF VAR FIELDS
14	(E)	SIGNED	2	INFCC	SYSTEM COMPLETION CODE
16	(10)	UNSIGNED	1	INFCL	ABEND REASON CODE
17	(11)	CHARACTER	1	INFFLG	FLAG BYTE
	1... ....			INFBRENT	BRANCH ENTRY WHEN ON
	.1... ....			INFFRMN	FREEMAIN WHEN ON
	..1. ....			INF_USERKEY	User Key when on
18	(12)	CHARACTER	2	*	RESERVED
20	(14)	CHARACTER	4	INFVAR(7)	VARIABLE INFORMATION
48	(30)	CHARACTER	0	INFEND	END OF MAPPING MACRO

Table 815. Cross Reference for INF

Name	Offset	Hex Tag
INF_USERKEY	11	20
INFASCB	0	
INFBADDR	8	
INFBODY	4	
INFBRENT	11	80
INFCC	E	
INFCL	10	
INFEND	30	
INFFLG	11	
INFFRMN	11	40
INFLIST	0	
INFTCB	4	
INFVAR	14	
INFVARCT	C	

# IOBE information

## IOBE programming interface information

IOBE is a programming interface.

## IOBE heading information

<b>Common name:</b>	Input/Output Block (IOB) Extension
<b>Macro ID:</b>	IOSDIOBE
<b>DSECT name:</b>	IOSDIOBE
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IOBE Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: User Key: User Data Space: No Residency: 31 Bit
<b>Size:</b>	48-bytes
<b>Created by:</b>	Issuer of EXCP or STARTIO
<b>Pointed to by:</b>	Register 0 at the time of the EXCP IOSXIOBE for I/O drivers
<b>Serialization:</b>	None
<b>Function:</b>	An optional control block used by users of EXCP or of the I/O driver interface. It is used as a communication area between the user, IOS and device dependent code such as Error Recovery Procedures (ERPs). For I/O drivers, the IOBE is an extension of the IOSB extension (IOSBE) and is pointed to from the IOSBE via field IOSXIOBE. When the IOBE is used by EXCP users, the IOBE is pointed to by register 0 at entry to EXCP. EXCP then saves the address of the IOBE in the Request Queue Element (RQE).

## IOBE mapping

Table 816. Structure IOBE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOBE	Input/Output Block Extension
0	(0)	CHARACTER	4	IOBEID	Eye catcher.
4	(4)	BITSTRING	1	IOBEVERS	Version number.
5	(5)	BITSTRING	1	IOBEFLG1	Flags field. The bits in this flag are reserved and are not part of the programming interface.
		1... ..		IOBESPAB	"X'80'" Suppress EXCP abends. The user requests to be posted back instead of getting abended with a completion code. (Only valid for E00 abends.)

Table 816. Structure IOBE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1... ....		IOBEREJDEVGRP	"X'40'" Reject the I/O request if the device is grouped to a remote system
		EQU X'3F' Reserved			
6	(6)	BITSTRING	1	IOBEFLG2	Flag field 2. The bits in this flag byte are intended for use by the issuer of EXCP to control the execution of the channel program
		1... ....		IOBEMIDA	"X'80'" This channel program uses MIDAWs.
		.1... ....		IOBEP	"X'40'" Prefetching of CCWs and data is allowed
		..1. ....		IOBECPNM	"X'20'" When set, channel program cannot be modified during execution, other than to add CCWs at the end
		...1 ....		IOBEEIDA	"X'10'" 4K 8-Byte IDAWs
		.... 1...		IOBEP CIS	"X'08'" PCI Synchronization: Set on by I/O driver to indicate that the channel must synchronize after the next CCW following the the PCI (CCW+8) when prefetching (IOSP) is also set.
		.... .1..		IOBNORWS	"X'04'" No Read/Write Synchronization: Set on by I/O driver to indicate that the channel should not synchronize on read/write transitions when prefetching (IOSP) is also set. The driver insures that the read and writes are from different I/O buffers
		.... ..1.		IOB2CSWS	"X'02'" Two Channel Status Words: Set on by the I/O driver to indicate that when CCW prefetch is requested (IOSP), if an error occurs where the control unit executes ahead of the channel, two ending CCW addresses should be presented to the driver. The second ending CCW address is contained in the IEDB. If this bit is off, an invalid ending CCW address is simulated by IOS
		.... ...1		IOBEFMT1	"X'01'" Format-1 CCWs
7	(7)	BITSTRING	1	IOBEERPM	Mask indicating the functions the ERP is allowed to perform.
		1... ....		IOBEPMSG	"X'80'" The user allows basic ERP recovery plus the issuance of permanent error messages that do not require interaction with the system or an operator.
		.1... ....		IOBEBPER	"X'40'" Bypass permanent error recovery. Indicates that if an error is permanent, the ERP will not issue an IOS000I message, log the error, or perform other actions that the ERP might normally do for a permanent error. The I/O driver may provide an alternate means of recovery.
		..1. ....		IOBERSUS	"X'20'" Allow reads to a suspended PPRC secondary device. 0=Permit reads while the secondary is Full Duplex. 1=Permit reads while the secondary is Full Duplex or Suspended.

Table 816. Structure IOBE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
	EQU X'10'	Reserved			
	EQU X'08'	Reserved			
	EQU X'04'	Reserved			
	EQU X'02'	Reserved			
	EQU X'01'	Reserved			
8	(8)	ADDRESS	4	IOBEUPTR(0)	Pointer definition of the user reserved field.
8	(8)	CHARACTER	4	IOBEUSER	Character field reserved for the user's needs.
12	(C)	ADDRESS	4	IOBEIEDB(0)	Address of an I/O Error Data Block (IOSDIEDB).
12	(C)	ADDRESS	4	IOBESIEB	For synchronous I/O, the address of the synchronous I/O error block (IOSDSIEB)
16	(10)	BITSTRING	1	IOBEFLG3	Flag byte 3
	1... ..			IOBENSER	"X'80'" Indicates that the device may bypass the channel program extent collision checking. Extent range enforcement will remain active. (DASD only)
	.1.. ..			IOBENVAL	"X'40'" Indicates that the device is to bypass the validation checking of the parameters on Define Extent and Locate Record commands. Extent enforcement remains active. (DASD only)
	..1. ....			IOBEDSMC	"X'20'" Set ON by user to disable Streaming Mode Control for the current I/O operation.
	...1 ....			IOBEIOT	"X'10'" When 0, IOBETIME only applies to active requests. When 1, IOBETIME applies to queued and active requests.
	.... 1...			IOBEDCWOFFSETVALID	"X'08'" The value in IOBEDCWOFFSET is valid. Must be set to zero by the driver.
	.... .1..			IOBERESCOUNTVALID	"X'04'" The value in IOBEResCount is valid. Must be set to zero by the driver.
	.... ..1.			IOBEKEYFLDS0	"X'02'" Key fields contain zero
	.... ...1			IOBENOIL	"X'01'" For system use
17	(11)	CHARACTER	1	IOBESIOC	SIO condition code for format 1 EXCP/EXCPVR requests
18	(12)	BITSTRING	1	IOBETIME	Only honored when the DEB indicates the dataset was opened for input. When non-0, this is the maximum time value, in seconds, that the EXCP allows before an MIH condition is declared, regardless of the MIH setting for the device or whether MIH is being bypassed. No message or logrec entry will be created when the condition occurs.
19	(13)	BITSTRING	1	IOBEFLG4	Flag byte 4
	1... ..			IOBEZHPP	"X'80'" zHPF channel program - used for EXCPVR and EXCP virtual requests
	.1.. ..			IOBECACHEMISS	"X'40'" One or more I/O device cache misses occurred during this I/O operation. This bit is valid only for zHPF I/O requests. It must be set to zero by the driver.



Table 816. Structure IOBE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
	..1. ....			IOBESYNIO_ELIG	"X'20'" Set by the I/O driver to indicate the I/O request is eligible for (would benefit from) synchronous I/O (zHyperlink). This flag is set if the caller of the I/O driver indicated it will support synchronous I/O in the future for this I/O request, or if the caller currently supports synchronous I/O but the function is disabled for the device.
	...1 ....			IOBECRS	"X'10'" Set by the I/O driver to indicate that consistent read from secondary is requested
	.... 1...			IOBEOSREJECT	"X'08'" The operating system detected a condition that caused the I/O to be rejected before issuing the synchronous I/O (zHyperLink) request
20	(14)	BITSTRING	4	IOBERESCOUNT	Residual count for FCX. Must be set to zero by the driver
20	(14)	X'14'	0	IOBESYNIO_RC	"IOBEResCount+0,2" Synchronous I/O response code. See macro IHASIRC
20	(14)	X'16'	0	IOBESYNIO_RCQ	"IOBEResCount+2,2" Synchronous I/O response code qualifier. See macro IHASIRC.
24	(18)	BITSTRING	2	IOBEDCWOFFSET	Offset of the last executed DCW within the DCW list. Valid only when IOBEDCWOFFsetValid is on. Must be set to zero by the driver.
24	(18)	X'18'	0	IOBESYNIO_TOKEN	"IOBEDCWOFFset,2" Synchronous I/O token
26	(1A)	BITSTRING	2	IOBEDDPC_DATA(0)	Device dependent program check data
26	(1A)	BITSTRING	1	IOBEDDPC_RC	Reason code
27	(1B)	BITSTRING	1	IOBEDDPC_RCQ	First byte of reason code qualifier information
28	(1C)	BITSTRING	1	IOBERCOD	I/O completion reason code for EXCPVR and EXCP requests
29	(1D)	BITSTRING	1	IOBESMMK	Software mirroring mask bits
30	(1E)	CHARACTER	14		Reserved
44	(2C)	ADDRESS	4	IOBECKN	Pointer to I/O configuration token
44	(2C)	X'30'	0	IOBEEND	"*" End of IOBE.
44	(2C)	X'30'	0	IOBELNTH	"IOBEEND-IOBE" Length of IOBE.
44	(2C)	X'1'	0	IOBEVRSC	"1" Version number.

Table 817. Cross Reference for IOBE

Name	Offset	Hex Tag
IOBE	0	
IOEBPER	7	40
IOBECACHEMISS	13	40
IOBECPNM	6	20
IOBECRS	13	10
IOBECKN	2C	
IOBEDCWOFFSET	18	
IOBEDCWOFFSETVALID	10	8

Table 817. Cross Reference for IOBE (continued)

Name	Offset	Hex Tag
IOBEDDPC_DATA	1A	
IOBEDDPC_RC	1A	
IOBEDDPC_RCQ	1B	
IOBEDSMC	10	20
IOBEEIDA	6	10
IOBEEND	2C	30
IOBEERPM	7	
IOBEFLG1	5	
IOBEFLG2	6	
IOBEFLG3	10	
IOBEFLG4	13	
IOBEFMT1	6	1
IOBEID	0	
IOBEIEDB	C	
IOBEIOT	10	10
IOBEKEYFLDS0	10	2
IOBELNTH	2C	30
IOBEMIDA	6	80
IOBENOIL	10	1
IOBENSER	10	80
IOBENVAL	10	40
IOBEOSREJECT	13	8
IOBEP	6	40
IOBEP CIS	6	8
IOBEPMSG	7	80
IOBERCOD	1C	
IOBEREJDEVGRP	5	40
IOBERESCOUNT	14	
IOBERESCOUNTVALID	10	4
IOBERSUS	7	20
IOBESIEB	C	
IOBESIOC	11	
IOBESMMK	1D	
IOBESPA B	5	80
IOBESYNIO_ELIG	13	20
IOBESYNIO_RC	14	14
IOBESYNIO_RCQ	14	16
IOBESYNIO_TOKEN	18	18
IOBETIME	12	

Table 817. Cross Reference for IOBE (continued)

Name	Offset	Hex Tag
IOBEUPTR	8	
IOBEUSER	8	
IOBEVERS	4	
IOBEVRSC	2C	1
IOBEZHPF	13	80
IOBNORWS	6	4
IOB2CSWS	6	2

## IOCOM information

### IOCOM programming interface information

**ONLY** the following fields are part of the programming interface information:

- IOCCADSALET
- IOCCSSID
- IOCDATH
- IOCECMXLen
- IOCECMXPtr
- IOCEMW
- IOCHPAV
- IOIECAA
- IOCMCSS
- IOCOMWPT
- IOCPAVE
- IOXPAV

### IOCOM heading information

<b>Common name:</b>	I/O Communication area
<b>Macro ID:</b>	IECDIOCM
<b>DSECT name:</b>	IOCOM, IOCOMW
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IOCM Offset: IOCOM-16 Length: 8
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: n/a Auxiliary Storage: n/a Subpool: N/A - Nucleus resident Key: 0 Residency: Below 16M
<b>Size:</b>	See assembler listing.

**Created by:** IOSVDATA

**Pointed to by:** CVTIXAVL field of the CVT data area to the IOCOM data area  
 IOWIOCOM field of the IOWA data area to the IOCOM data area  
 IOCOMWPT field of the IOCOM data area to the IOCOM writtable  
 IOWIOCMW field of the IOWA data area to the IOCOM writtable  
 IOCOMEX field of the IOCOM data area to the IOCOM extension  
 IOCSYNCA field of the IOCOM data area to the IOS SYNCH table

**Serialization:** None for the readable portion of the IOCOM. The writeable portion of the IOCOM (IOCOMW), the IOCHTFD, is serialized using CDS instruction.

**Function:** IOCOM contains addresses to IOS modules and control blocks.

## IOCOM mapping

Table 818. Structure IOCOM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOCOM	
0	(0)	X'0'	0	IECIXAVL	"IOCOM" Compatibility name
0	(0)	DBL WORD	8	(0)	
0	(0)	SIGNED	2	IOCV0ICT	Number of VOID entries *calculated by IEAIPL03
2	(2)	SIGNED	2	IOCV0ILN	Length of each VOID table entry
4	(4)	ADDRESS	4	IOCPST	X'80000000'+IECPST Entry address of the IOS Post Status module
8	(8)	ADDRESS	4	IOCOMWPT	"V" IECOMW Pointer to modifiable part of IOCOM
12	(C)	ADDRESS	4	IOCSSCQ	X'80000000'+IOSVSSCQ Entry address for the STARTIO macro
16	(10)	ADDRESS	4	IOCMAP	X'80000000'+IECVMAP Entry address of the IOSMAP routine
20	(14)	ADDRESS	4	IOCSMFRR	X'80000000'+IOSVQFRR Address of IOQ Storage Manager FRR routine
24	(18)	ADDRESS	4	IOCSCOMP	X'80000000'+IOSVSCOM Address of IOS Storage Manager SRB entry compress routine
28	(1C)	ADDRESS	4	IOCSTIO	X'00000000'+IECVSTIO Entry address of the compatibility STARTIO macro
32	(20)	ADDRESS	4	IOCV0ID	"V" IECVOID Address of vector of IOS drivers
36	(24)	ADDRESS	4	IOCI0SSM	X'80000000'+IOSVSMGR Start address of the IOS Storage Manager
40	(28)	ADDRESS	4	IOCDIRB	"V" IOSVIRB Pointer to default error IRB
44	(2C)	ADDRESS	4	IOCPRGID	X'80000000'+IOSPGRTM Purge Dequeue routine address
48	(30)	ADDRESS	4	IOCCHRB	"V" IOSVCHRB Pointer to the channel recovery block (IOSDCHRB)
52	(34)	ADDRESS	4	IOCISDT	"V" IOSVISDT Pointer to the interrupt subclass definition table
56	(38)	ADDRESS	4	IOCSWAP	X'80000000'+IOSVSWAP Entry address of the SWAP device function
60	(3C)	ADDRESS	4	IOCSHUP	X'80000000'+IOSVSHUP Entry address of the routine to check for device reservations.

Table 818. Structure IOCOM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
64	(40)	ADDRESS	4	IOCOMEX	IOSVIOCX Address of the IOCOM extension
68	(44)	ADDRESS	4	IOCATTL	"V" IOSVATTN Address of attention table
72	(48)	ADDRESS	4	IOCSYNCA	"V" IOSVSYLK Address of the IOS Synchronization lock table
76	(4C)	ADDRESS	4	IOCCNT	X'80000000'+IOSVCNT Entry address of the routine to count requests queued on a UCB
80	(50)	ADDRESS	4	IOCHSCH	X'80000000'+IOSVHSCH Entry address of the Halt and Clear subchannel routine
84	(54)	ADDRESS	4	IOCGENA	X'00000000'+IECVGENA Address of IOSGEN subroutine
88	(58)	ADDRESS	4	IOCMSCQ	X'80000000'+IOSVMSCQ Entry address of the Modify subchannel routine
92	(5C)	ADDRESS	4	IOCBHSPCI	X'80000000'+BHIP1PCI Entry address of the BHS PCI interface routine
96	(60)	ADDRESS	4	IOCSTSQ	X'80000000'+IOSVSTSQ Entry address of the Store subchannel routine
100	(64)	ADDRESS	4	IOCTCCW	X'00000000'+IECVGCCW Address of CCW translator glue routine
104	(68)	ADDRESS	4	IOCSVCF	X'80000000'+IGC015 Entry point of SVC F in the IOS Post Status module
108	(6C)	ADDRESS	4	IOCVARY	X'80000000'+IOSVVARY Entry address of the Vary routine
112	(70)	ADDRESS	4	IOCCNXL	X'80000000'+IOSVCNXL Entry address of the cancel request routine
116	(74)	ADDRESS	4	IOCQCNT	X'00000000'+IECVQCNT Address of purge IPIB quiesce count decrement/post subroutine
120	(78)	ADDRESS	4	IOASCBC	"V" IEAMASCB ASCB used for scheduling
124	(7C)	ADDRESS	4	IOCNSTP	Address of the NIP SCHIB table. Set by IEAIPL03, reset by IEAVNP02.
128	(80)	ADDRESS	4	IOCIOWA	"V" IOSVIOWA Address of IOWA table
132	(84)	ADDRESS	2	IOCIOWEL	IOWEL Length of IOWA
134	(86)	ADDRESS	2	IOCSMGSS	0 Size of 31-bit processor related storage
136	(88)	ADDRESS	4	IOCCPRM	X'80000000'+IOSVCPRM Address of IOS Storage Manager initialization routine
140	(8C)	ADDRESS	4	IOCSCP	X'80000000'+IOSVSCP Entry address of the start channel-program service routine
144	(90)	ADDRESS	4	IOCSIQOC	X'80000000'+IOSVIOQC Entry address of the scan- IOQ-chain service routine
148	(94)	ADDRESS	4	IOCSDUMP	"V" IOSVDUMP Address of the IOS SDUMP parameter list
152	(98)	ADDRESS	4	IOCHCRS	X'80000000'+IOSVHCRS Address of Halt/Clear resource service routine to free resources tied to the associated start IOSB
156	(9C)	ADDRESS	4	IOCZTAB	"V" IOSVZTAB Address of module work area table
160	(A0)	ADDRESS	4	IOCSMHDR	"V" IOSVQHDR Pointer to IOS storage page pool header tables
164	(A4)	ADDRESS	4	IOCSMLG	X'80000000'+IOSVSMLG Address of IOS Storage Manager get large block entry

Table 818. Structure IOCOM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
168	(A8)	ADDRESS	4	IOCSMLF	X'80000000'+IOSVSMFL Address of IOS Storage Manager free large block entry
172	(AC)	ADDRESS	4	IOCSMPF	X'80000000'+IOSVSMPF Address of IOS Storage Manager purge/free entry
176	(B0)	ADDRESS	4	IOCSMMG	X'80000000'+IECVSMMG Address of IOS Storage Manager EXCP get RQE (medium) block entry
180	(B4)	ADDRESS	4	IOCSMMF	X'80000000'+IECVSMMF Address of IOS Storage Manager EXCP free RQE (medium) block entry
184	(B8)	ADDRESS	4	IOCSMEG	X'80000000'+IECVSMEG Address of IOS Storage Manager EXCP get large block entry
188	(BC)	ADDRESS	4	IOCSMEF	X'80000000'+IECVSMEF Address of IOS Storage Manager EXCP free large block entry
192	(C0)	ADDRESS	4	IOCDPTH	X'80000000'+IECVDPDH Address of Dynamic Pathing module
196	(C4)	ADDRESS	4	IOCLEVL	X'00000000'+IOSVGLVL Entry address of the IOS Level routine
200	(C8)	ADDRESS	4	IOCRSUM	X'00000000'+IOSVRSUM Entry address of the Resume I/O routine
204	(CC)	ADDRESS	4	IOCEXHDR	"V" IECVSHDR Pointer to EXCP storage page pool header tables
208	(D0)	ADDRESS	4	IOCIOVTP	"V" IOVT Address of IOS Vector Table (IOVT)
212	(D4)	ADDRESS	4	IOCDPSV	X'80000000'+IOSRDPSV DPS Validation
216	(D8)	ADDRESS	4	IOCBIND	X'80000000'+IOSVBIND IOS PAV BIND Service
220	(DC)	ADDRESS	4	IOCSGMT	X'80000000'+IOSCSGMT IOS SCMT services
224	(E0)	ADDRESS	4	IOCCMB	X'80000000'+IOSVCMB IOS CMB Service
228	(E4)	ADDRESS	4	IOCHSWP	X'80000000'+IOSVHWP IOS Hyperswap Initiation Service
232	(E8)	BITSTRING	1	IOCDDLVL	DDR Level. Initialized by IOS Storage Manager at NIP.
233	(E9)	BITSTRING	3		Available
236	(EC)	ADDRESS	4	IOCCSTK	X'80000000'+IOSVCSTK IOS CPU Stack Service
240	(F0)	ADDRESS	4	IOCFBND	X'80000000'+IOSVFBND IOS Fast BIND Service
244	(F4)	ADDRESS	4	IOCSIPFM	X'00000000'+IOSSIPFM IOSSYNIO Perform service
248	(F8)	ADDRESS	4	IOCSIQRY	X'00000000'+IOSSIQRY IOSSYNIO Query service
252	(FC)	ADDRESS	4	IOCRSV4(3)	Reserved
264	(108)	BITSTRING	4	IOCSMGZ64	Size of 64-bit processor related storage
268	(10C)	ADDRESS	4	IOCLVTBL	"V" IOSVLVTB Pointer to the IOS level table
272	(110)	BITSTRING	1	IOCFLAGS	IOCOM flag and ID byte
		1... ....		IOCSINTC	"X'80'" IEAVNP02 subchannel initialization complete (set by IEAVNP02)
		.1... ....		IOCIODF	"X'40'" IPL sets on if the IODF IPL path was used.

Table 818. Structure IOCOM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		IOCCRWE	"X'20'" IEAVNP02 sets on when enabling for CRWs.
		...1 ....		IOCPAVS	"X'10'" PAVs are supported
		.... 1...		IOCEMW	"X'08'" Extended I/O measurement word facility is enabled
		.... .1..		IOCMCSS	"X'04'" The multiple channel subsystem (MCSS) facility is supported by the hardware
272	(110)	X'110'	0	IOCHSSID	"IOCFLAGS+0,1" Highest subchannel set ID in use (bits 6-7)
273	(111)	BITSTRING	1	IOCQSCLV	Quiesce level. Initialized by IOS Storage Manager at NIP time
274	(112)	BITSTRING	1	IOCIQVR	IOQ Version number
		.... ...1		IOCIQV1	"X'01'" IOQ Version 1. The IOQ has 92 bytes workarea for the device dependent exits
275	(113)	BITSTRING	1	IOCCSSID	Default channel subsystem id for this logical partition
276	(114)	ADDRESS	4	IOCIQSQ	"V" IOSVIOSQ Address of IOS Storage Manager IOQ staging queue table
280	(118)	ADDRESS	4	IOCFDEV	X'80000000'+IOSRFDEV Address of force device SRB routine
284	(11C)	ADDRESS	4	IOACRW	X'80000000'+IOSRACRW Address of asynchronous CRW processor
288	(120)	ADDRESS	4	IOCHIDT	"V" IOSRHIDT Address of the Hot I/O detection table
292	(124)	ADDRESS	4	IOCSCHNO	IECVGENA+X'0000001C' Address of the Subchannel number service routine in IECVGENA
296	(128)	ADDRESS	4	IOCIPIID	IOSVIPID Address of the I/O prevention identifier service routine- IOSVIPID
300	(12C)	ADDRESS	4	IOCPRVT	IOSVPRVT Address of the I/O Prevention service routine - IOSVPRVT
304	(130)	ADDRESS	4	IOCURGC	IOSPURGC Address of the branch entry - IOSPURGC.
308	(134)	ADDRESS	4	IOCRERPT	Address of the resident ERP - table. (valid if IOCIODF is off)
312	(138)	ADDRESS	4	IOCCDTSR	X'80000000'+IOSCCDT Address of configuration data table service routine
316	(13C)	ADDRESS	4	IOCCUIR	X'80000000'+IOSVCUIR Address of CUIR service routine
320	(140)	ADDRESS	4	IOCSLFD	X'80000000'+IOSVSLFD Address of self description service routine
324	(144)	ADDRESS	4	IOCSLFI	X'80000000'+IOSVSLFI Address of self description initialization routine
328	(148)	ADDRESS	4	IOCIMSGA	X'80000000'+IMSGARRY Address of IOS message array
332	(14C)	ADDRESS	4	IOCMIHQ	X'80000000'+IOSVMIHQ Address of the MIH query service routine
336	(150)	ADDRESS	4	IOCMANI	X'80000000'+IOSVMANI Address of the IOS manual intervention service routine
340	(154)	ADDRESS	4	IOCCSCM	X'80000000'+IOSRCSCM Address of CSCM service routine
344	(158)	ADDRESS	4	IOCBHICT	X'80000000'+BHIT2RCD Address of BHI CTrace non BHIHSRV entry point

Table 818. Structure IOCOM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
344	(158)	X'15C'	0	IOCOEND	"*" End of the read only section of the IOCOM

Table 819. Structure IOCOMW

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IOCOMW	Modifiable part of IOCOM
0	(0)	DBL WORD	8	(0)	
(Addressed by IOCOMWPT)					
0	(0)	CHARACTER	4	IOCIOCW	Acronym for modifiable section of the IOCOM ('IOCW')
4	(4)	ADDRESS	2	IOCLENW	Length of the modifiable section of the IOCOM
6	(6)	SIGNED	2	IOCPGCT	Number of active I/O purges
8	(8)	DBL WORD	8	IOCHTFLD(0)	
8	(8)	ADDRESS	4	IOCSLIH	X'80000000'+IOSVSLIH Pointer to the second level interrupt handler or the IOS interrupt trap routine. This field will also have an external label of IECSLIHA.
12	(C)	SIGNED	4	IOCHOTCT	Count of Hot Devices. If this field is not zero, IOCSLIH will point to the HOT I/O SLIH
16	(10)	ADDRESS	4	IOCMIHCA	MIHATBLE Address of the MIH work area. Prior to MIH initialization the first two bytes of the MIH work area are set to blanks. After MIH initialization, these two bytes are set to **.
20	(14)	ADDRESS	4	IOCIOPTA	Address of the I/O Prevention table (IOPT).
24	(18)	SIGNED	2	IOCIOPTC	Count of the number of IOPT table entries.
26	(1A)	SIGNED	2	IOCSSCBT	SSCB token updated everytime an SSCB is added or deleted from theCDT SSCB chain. This allows services like SSCBSCAN to check for SSCB changes.
28	(1C)	ADDRESS	4	IOCCDT	Pointer to configuration data table
32	(20)	ADDRESS	4	IOCCPAT	Pointer to channel path attribute table
36	(24)	ADDRESS	4	IOCCUIRQ	Pointer to CUIR request queue
40	(28)	SIGNED	4	IOCSLFCT	Counter used during self description initialization to keep track of the number of devices being initialized
44	(2C)	ADDRESS	1	IOCFLAG2	Flag byte. Note: IOCIOSHWSAP is initialized to '1'b and is never reset.
		1... ....		IOCSLFSD	"X'80'" Indicates that scan of UCBs during self description initialization is done
		.1.. ....		IOCCDTIN	"X'40'" Indicates that CDT is initialized
		..1. ....		IOCCULA	"X'20'" Indicates that the CULAs are initialized
		...1 ....		IOCUPCDS	"X'10'" If ON, indicates the that IOS record in the couple dataset has been updated.



Table 819. Structure IOCOMW (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1...		IOCGDPSHSWAP2	"X'08'" If ON, indicates that the GDPS Hyperswap Stage II environment exists, including: - Unplanned outage support - Recognition of ENF-63 as a trigger Specifically, this bit is on when the HS API address space is up and has a configuration.
		.... .1..		IOCDATH	"X'04'" If ON, indicates that the "Device Active Only" time in the CMB is supported by the hardware
		.... ..1.		IOCIOSHSWAP	"X'02'" If ON, indicates that the IOS Hyperswap environment exists
		.... ...1		IOCGDPSHSWAP	"X'01'" If ON, indicates that the GDPS Hyperswap environment exists and is available
45	(2D)	ADDRESS	1	IOCFLAG3	Flag byte. Note: IOC0DS and IOCPREFPATHS are initialized to '1'b and never reset
		1... ....		IOC0DS	"X'80'" Offline Device Services are supported
		.1.. ....		IOCDPINC	"X'40'" If ON, indicates that dynamic pathing initialization processing is complete for all online devices. (set by IECVIOSI)
		..1. ....		IOCJES3HSWAP	"X'20'" If ON, indicates that JES3 supports hyperswaps (Set by JES3).
		...1 ....		IOCPREFPATHS	"X'10'" If ON, preferred pathing is supported by IOS.
		.... 1...		IOCGDPSIOT	"X'08'" If ON, indicates that GDPS supports the IO Timing trigger for HyperSwap
		.... .1..		IOCIINBAND	"X'04'" If ON, indicates that in-band Key management is preferred
		.... ..1.		IOCGDPSHSWPACT	"X'02'" If ON, indicates that a HyperSwap is in the process of being performed
		.... ...1		IOCGDPSHWPCLN	"X'01'" If ON, indicates that HyperSwap is in the process of post swap cleanup
46	(2E)	BITSTRING	2	IOCECMXLEN	Length of each ECMX entry
48	(30)	ADDRESS	4	IOCPURGQ	Anchor for global queue of Purge Quiesce IPIBs. Serialized via the IOSYNCH lock.
52	(34)	ADDRESS	4	IOCPAVE	"V(PAVE)" Anchor for PAV Exit Table
56	(38)	ADDRESS	4	IOIECAA	"V(IECA)" Address of IOS Extended Communication Area
60	(3C)	SIGNED	4	IOCCADSALET	CADS Alet
64	(40)	SIGNED	4	IOCFLAG4(0)	Flag Word
64	(40)	BITSTRING	1	IOCFLG4A	Flag Byte
		1... ....		IOCHPAV	"X'80'" On, HYPERPAV=YES or HYPERPAV=XPAV
		.1.. ....		IOCHPB0	"X'40'" On, HYPERPAV=BASEONLY
		..1. ....		IOCHPAVD	"X'20'" On, at least one LSS is in HYPERPAV mode
		...1 ....		IOCHPFIL	"X'10'" zHPF incorrect length support provided by the processor

Table 819. Structure IOCOMW (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		IOCSWAPMGRSETSSYSCANHSWAP	"X'08'" 0-There is no hyperswap manager or the hyperswap manager does not support the IOCSysCanHyperSwap flag 1-The hyperswap manager supports the IOCSysCanHyperSwap flag
		.... .1..		IOCSYSTEMCANHYPERSWAP	"X'04'" 0-The sysplex and/or this system is currently not enabled for hyperswap 1-The sysplex and this system are currently enabled for hyperswap
		.... ..1.		IOXPAV	"X'02'" On, HYPERPAV=XPAV
		.... ...1		IOXPAV_ENABLED	"X'01'" On, SuperPAV is enabled
65	(41)	BITSTRING	1	IOCFLG4B	Flag byte
		1... ....		IOCHSRESERVE	"X'80'" On, HyperSwap hardware reserve is active
		.1... ....		IOCUNPLNHSDISABLEDBYAPI32	"X'40'" On, the HyperSwap manager has disabled unplanned HyperSwap capability via API function code 32. This will stop the ENF 63 from being issued as the result of any ?IOSHSWAP invocation
		..1. ....		IOCUNPLNIOTHSDISABLEDBYAPI37	"X'20'" On, the HyperSwap manager has disabled I/O Timing trigger unplanned HyperSwap capability via API function code 37. This will stop the ENF 63 from being issued as the result of a ?IOSHSWAP invocation for an I/O Timing condition, to avoid the possibility of the device to become not ready (UCBNRY)
		...1 1111		IOCRESV1	"X'1F'" Reserved
66	(42)	BITSTRING	2		Reserved
68	(44)	ADDRESS	4	IOC_BHS_CSMARRAY@	Address of the BHS CsmArray
72	(48)	ADDRESS	4	IOCECMXPTR	Pointer to the ECMX area. There is an entry per DASD/TAPE/UREC device. Each entry is indexed using the UCBMBI, UCBSSID and IOCECMXLen fields, and qualified using the IOCCADSALET ALET
76	(4C)	BITSTRING	1	IOCSIOMAXGRPS	The maximum number of groups a parallel synchronous I/O request can be processed
77	(4D)	BITSTRING	1		Reserved
78	(4E)	BITSTRING	2	IOC_DSE1_DYNSIZE	Size of DSE1 dynamic area required
80	(50)	ADDRESS	8	IOCZWICINSTRBUFFER	Address of the IOS zWIC instrumentation buffer
88	(58)	BITSTRING	24		Reserved
88	(58)	X'70'	0	IOCENDW	"*" End of the modifiable section of the IOCOM

Table 820. Cross Reference for IOCOM

Name	Offset	Hex Tag
IECIXAVL	0	0
IOC_BHS_CSMARRAY@	44	
IOC_DSE1_DYNSIZE	4E	
IOACRW	11C	
IOASCBC	78	

Table 820. Cross Reference for IOCOM (continued)

Name	Offset	Hex Tag
IOCATTL	44	
IOCBHICT	158	
IOCBHSPCI	5C	
IOCBIND	D8	
IOCCADSALET	3C	
IOCCDT	1C	
IOCCDTIN	2C	40
IOCCDTSR	138	
IOCCHRB	30	
IOCCMB	E0	
IOCCNT	4C	
IOCCNXL	70	
IOCCPAT	20	
IOCCPRM	88	
IOCCRWE	110	20
IOCCSCM	154	
IOCCSSID	113	
IOCCSTK	EC	
IOCCUIR	13C	
IOCCUIRQ	24	
IOCCULA	2C	20
IOCDAOTH	2C	4
IOCDDRLV	E8	
IOC DIRB	28	
IOCDPINC	2D	40
IOCDPSV	D4	
IOCDPTH	C0	
IOCECMXLEN	2E	
IOCECMXPTR	48	
IOCEMW	110	8
IOCENDW	58	70
IOCEXHDR	CC	
IOCFBND	F0	
IOCFDEV	118	
IOCFLAGS	110	
IOCFLAG2	2C	
IOCFLAG3	2D	
IOCFLAG4	40	
IOCFLG4A	40	

Table 820. Cross Reference for IOCOM (continued)

Name	Offset	Hex Tag
IOCF LG4B	41	
IOCGDPSHSWAP	2C	1
IOCGDPSHSWAP2	2C	8
IOCGDPSHSWPACT	2D	2
IOCGDPSHSWPCLN	2D	1
IOCGDPSIOT	2D	8
IOCGENA	54	
IOCHCRS	98	
IOCHIDT	120	
IOCHOTCT	C	
IOCHPAV	40	80
IOCHPAVD	40	20
IOCHPBO	40	40
IOCHSCH	50	
IOCHSRESERVE	41	80
IOCHSSID	110	110
IOCHSWP	E4	
IOCHTFLD	8	
IOCIECAA	38	
IOCIMSGA	148	
IOCINBAND	2D	4
IOCIOCW	0	
IOCIODF	110	40
IOCIOPTA	14	
IOCIOPTC	18	
IOCIOQSQ	114	
IOCIOQVR	112	
IOCIOQV1	112	1
IOCIOSHSWAP	2C	2
IOCIOSSM	24	
IOCIOVTP	D0	
IOCIOWA	80	
IOCIOWEL	84	
IOCIPID	128	
IOCISDT	34	
IOCJES3HSWAP	2D	20
IOCLENW	4	
IOCLEVL	C4	
IOCLVTBL	10C	

Table 820. Cross Reference for IOCOM (continued)

Name	Offset	Hex Tag
IOCMANI	150	
IOCMAP	10	
IOCMCSS	110	4
IOCMIHCA	10	
IOCMIHQ	14C	
IOCMSCQ	58	
IOCNSTP	7C	
IOCODS	2D	80
IOCOEND	158	15C
IOCOM	0	
IOCOMEX	40	
IOCOMW	0	
IOCOMWPT	8	
IOCPAVE	34	
IOCPAVS	110	10
IOCPGCT	6	
IOCPREFPATHS	2D	10
IOCPRGID	2C	
IOCPRVT	12C	
IOCPST	4	
IOCPURGQ	30	
IOQCNT	74	
IOQSCLV	111	
IOCRERPT	134	
IOCRESV1	41	1F
IOCRSUM	C8	
IOCRSV4	FC	
IOCSCHNO	124	
IOCSMT	DC	
IOSCOMP	18	
IOSCP	8C	
IOCSDUMP	94	
IOCSHUP	3C	
IOCSINTC	110	80
IOCSIOMAXGRPS	4C	
IOCSIOQC	90	
IOCSIPFM	F4	
IOCSIQRY	F8	
IOCSLFCT	28	

Table 820. Cross Reference for IOCOM (continued)

Name	Offset	Hex Tag
IOCSLFD	140	
IOCSLFI	144	
IOCSLFSD	2C	80
IOCSLIH	8	
IOCSMEF	BC	
IOCSMEG	B8	
IOCSMFRR	14	
IOCSMGSZ	86	
IOCSMGSZ64	108	
IOCSMHDR	A0	
IOCSMLF	A8	
IOCSMLG	A4	
IOCSMMF	B4	
IOCSMMG	B0	
IOCSMPF	AC	
IOCSSCBT	1A	
IOCSSCQ	C	
IOCSTIO	1C	
IOCSTSQ	60	
IOCSVCF	68	
IOCSWAP	38	
IOCSWAPMGRSETSSYSCANHSWAP	40	8
IOCSYNCA	48	
IOCSYSTEMCANHYPERSWAP	40	4
IOCTCCW	64	
IOCUNPLNHSDISABLEDBYAPI32	41	40
IOCUNPLNIOTHSDISABLEDBYAPI37	41	20
IOCUPCDS	2C	10
IOCURGC	130	
IOCVARY	6C	
IOCVOICT	0	
IOCVOID	20	
IOCVOILN	2	
IOCXPAV	40	2
IOCXPAV_ENABLED	40	1
IOCZHPFIL	40	10
IOCZTAB	9C	
IOCZWICINSTRBUFFER	50	

## IOQ information

### IOQ heading information

<b>Common name:</b>	IOS Queue Element
<b>Macro ID:</b>	IECDIOQ
<b>DSECT name:</b>	IOQ and IOQE
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IOQ Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: n/a Auxiliary Storage: n/a Subpool: 226 Key: 0 Residency: Below the 16M line
<b>Size:</b>	128 bytes
<b>Created by:</b>	IOS
<b>Pointed to by:</b>	IOQCHAIN field of the IOQ data area (next IOQ) UCBIOQ field of the IOQ data area UCBIOQF field of the UCB data area UCBIOQL field of the UCB data area.
<b>Serialization:</b>	The respective UCB lock for queuing and dequeuing IOQs on the UCB IOQ chain.
<b>Function:</b>	Provides a queuing element necessary to enqueue and dequeue I/O requests on a UCB Queue. Contains the prefix CCWs associated with callers channel program.

### IOQ mapping

Table 821. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Table 822. Structure IOQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOQ	
0	(0)	DBL WORD	8	(0)	Align on double word
0	(0)	CHARACTER	4	IOQID	Control block ID ('IOQ ')
4	(4)	CHARACTER	124	IOQIOS(0)	Area used by IOS
4	(4)	CHARACTER	28	IOQIOS1(0)	IOS area 1
4	(4)	ADDRESS	4	IOQCHAIN	Points to next IOQ on UCB chain
8	(8)	ADDRESS	4	IOQIOSB	Address of IOSB associated with the I/O request

Table 822. Structure IOQ (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	ADDRESS	4	IOQSTART	Address of the routine which will start the I/O request (SSCH, STSCH, MSCH or others)
16	(10)	BITSTRING	4	IOQFLAGS	IOS internal flags
16	(10)	BITSTRING	1	IOQFLA	IOQ activity flag byte - Byte needs to be zeroed on IOQ initialization or reuse.
		1... ..		IOQACTV	"X'80'" ..IOQ active with an I/O request
		.1.. ..		IOQMERGE	"X'40'" ..Merge the device end status with the IOSB status.
		..1. ....		IOQPRVT	"X'20'" ..This I/O request contains an IOPID (I/O Prevention Identifier) in IOSB
		...1 ....		IOQWLM	"X'10'" ..This I/O request running with system in goal mode
		.... 1...		IOQIMEX	"X'08'" ..This I/O request is allowed by IOS to be executed immediately.
		.... .1..		IOQSKIP	"X'04'" ..This IOQ has been marked as permanently bypassed by IOS. The control blocks associated with this request could not be validated
17	(11)	BITSTRING	1	IOQPRFX0	Offset of channel program prefix set by SIO exit
18	(12)	BITSTRING	1	IOQPRI	I/O Priority value
		1111 1111		IOQHIPRI	"X'FF'" ..Highest priority that can be assigned to an I/O
19	(13)	BITSTRING	1	IOQTYPE	Type of operation this IOQ represents.
		.... ....		IOQSTRT	"X'00'" ..Start Subchannel request
		.... ...1		IOQSNS	"X'01'" ..Sense request
		.... ..1.		IOQHLT	"X'02'" ..Halt Subchannel request
		.... ..11		IOQCLR	"X'03'" ..Clear Subchannel request
		.... .1..		IOQSTOR	"X'04'" ..Store Subchannel request
		.... .1.1		IOQMDFY	"X'05'" ..Modify Subchannel request
		.... .11.		IOQST1	"X'06'" ..Subchannel type 1 request
		.... .111		IOQINCPT	"X'07'" ..Intercept condition request
		.... 1...		IOQINTER	"X'08'" ..Interrogate request
20	(14)	ADDRESS	4	IOQAIQ	Address of IOQ associated with this request- Halt and Clear requests
24	(18)	ADDRESS	4	IOQUCB	Address of the common segment of the UCB this request is queued on
28	(1C)	BITSTRING	2	IOQASID	ASID with which this request is associated
30	(1E)	BITSTRING	1	IOQCSSPR	Channel subsystem priority
31	(1F)	CHARACTER	1		Reserved
32	(20)	CHARACTER	4	IOQIOS2(0)	IOQ area 2, this area should not be initialized to zero
32	(20)	ADDRESS	4	IOQEPT	Address of IOQ Extension
36	(24)	CHARACTER	92	IOQIOS3(0)	IOS area 3
36	(24)	BITSTRING	92	IOQDDTWT(0)	Work area for device support code
36	(24)	BITSTRING	92	IOQ_NON_FCX_FORMAT(0)	Non-FCX Format IOQ
36	(24)	CHARACTER	12		Reserved -



Table 822. Structure IOQ (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
48	(30)	DBL WORD	8	IOQSNCCW(0)	Sense CCW
48	(30)	BITSTRING	64	IOQDDTWA(0)	Workarea for DDT exit usage. The first 8 bytes are used for Sense CCW.
48	(30)	BITSTRING	32		Sense CCW and reserved space
80	(50)	BITSTRING	32	IOQIRB	Save area for first 32-bytes of original IRB during IOS sense processing
112	(70)	CHARACTER	12		Reserved for IOS use- initialize to zeros
124	(7C)	BITSTRING	4	IOQDDTW2	Additional area for DDT exit usage
36	(24)	BITSTRING	92	IOQ_FCX_FORMAT(0)	FCX Format IOQ
36	(24)	BITSTRING	28		
64	(40)	BITSTRING	64	IOQTCW	Transport Control Word (on a 64-byte boundary)
64	(40)	X'80'	0	IOQLEN	"*-IOQ" Length of IOQ

Table 823. Structure IOQE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IOQE	
0	(0)	DBL WORD	8	(0)	Align on double word
0	(0)	BITSTRING	80	IOQEXT(0)	IOQ extension
0	(0)	CHARACTER	4	IOQEID	Control block ID ('IOQE')
4	(4)	BITSTRING	12	IOQMAREA(0)	IOQ Storage Manager area
4	(4)	ADDRESS	4	IOQSMGFP	IOQ primary queue forward pointer
8	(8)	ADDRESS	4	IOQSMGBP	IOQ primary queue backward pointer
12	(C)	ADDRESS	4	IOQSMGSQ	. IOQ staging queue address
16	(10)	BITSTRING	44	IOQEIOS(0)	Area used by IOS
16	(10)	BITSTRING	8	IOQSMGR(0)	IOQ Storage Manager header area with free chain queue word
16	(10)	ADDRESS	4	IOQSMGFQ	IOQ SMGR free chain queue word
20	(14)	BITSTRING	4	IOQSMHDR(0)	IOQ Storage Manager Header area
20	(14)	BITSTRING	4	IOQSMGH1(0)	
20	(14)	BITSTRING	2	IOQSMRV1	. Reserved - Initialize to zeros
22	(16)	BITSTRING	1	IOQSMRV2	. Reserved - Initialize to zeros
23	(17)	BITSTRING	1	IOQSMGAL	. IOQ allocation indication byte
	..11 11..			IOQALLOC	"X'3C'" IOQ allocated indicator
	..1. ..1.			IOQDORMT	"X'22'" IOQ is on the IOQ storage manager dormant queue
24	(18)	BITSTRING	2	IOQIOTCT	I/O timing count from when I/O request was placed on IOQ queue
26	(1A)	BITSTRING	2	IOQMIHCT	MIH time count from when I/O request was started
28	(1C)	CHARACTER	1	IOQMIHSF	MIH IOQ sequence usage field
29	(1D)	BITSTRING	1	IOQEFLAG	IOQ Extension Flags
	1... ....			IOQIOTQS	"X'80'" ..Quiesce IO Timing for HyperSwap
	.1.. ....			IOQENPFX	"X'40'" No prefix command could be inserted for this I/O
	..1. ....			IOQELKNA	"X'20'" Lock was not available at least one time (UCBLOCK)

Table 823. Structure IOQE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		IOQBYPINTG	"X'10'" Bypass interrogate processing for this I/O request
		.... 1...		IOQFORCERCVY	"X'08'" A problem with user I/O control blocks occurred. IOS sets this flag to force MIH to provide IOQ recovery.
		.... .1..		IOQECAPTURED	"X'04'" The UCB is captured
		.... ..1.		IOQEWPUCC	"X'02'" When on indicates to provide a unit check when this I/O is to be delayed
		.... ...1		IOQETID	"X'01'" Throttle-induced delay has been imposed for this I/O
30	(1E)	BITSTRING	1	IOQECPRI	Priority at which this IOQ is queued to the SSCB identified in IOQESSCB
31	(1F)	BITSTRING	1	IOQEFIOPR	Fabric I/O Priority
32	(20)	CHARACTER	8	IOQENCLV	Enclave token
40	(28)	ADDRESS	4	IOQORBUA	Address of UCB used for the SSCH operation. Will always contain an Actual UCB Common Segment address. May Contain an alias UCB address.
44	(2C)	ADDRESS	4	IOQESSCB	Address of the SSCB to which the IOQ is currently queued.
48	(30)	ADDRESS	4	IOQESSFP	Forward IOQ pointer when queued to an SSCB.
52	(34)	ADDRESS	4	IOQESSBP	Backward IOQ pointer when queued to an SSCB.
56	(38)	BITSTRING	2	IOQEIOMS	I/O management support data
		.111 ....		IOQE_IMPORTANCE	"X'70'" Importance level of IO
58	(3A)	CHARACTER	2		Reserved
60	(3C)	ADDRESS	4	IOQEIOQX	IOQX pointer, or zero
64	(40)	BITSTRING	16	IOQEIOS1(0)	Area used by IOS
64	(40)	CHARACTER	8	IOQEQEUEUTIME	The time the IOQ was queued
72	(48)	BITSTRING	1	IOQEFLAG1	IOQ Extension Flags 1
		1... ....		IOQEIOSQ	"X'80'" If this bit is on, IOS Queue time should be accumulated because this I/O was not started on the first attempt.
		.1.. ....		IOQEIOSQD	"X'40'" IOQEQueueTime has been converted to a delta because the I/O was successfully started.
73	(49)	CHARACTER	7		Reserved
73	(49)	X'50'	0	IOQELEN	"*-IOQE" Length of IOQE

Table 824. Cross Reference for IOQ

Name	Offset	Hex Tag
IOQ	0	
IOQ_FCX_FORMAT	24	
IOQ_NON_FCX_FORMAT	24	
IOQACTV	10	80
IOQAIQ	14	
IOQALLOC	17	3C
IOQASID	1C	

Table 824. Cross Reference for IOQ (continued)

Name	Offset	Hex Tag
IOQBYPINTG	1D	10
IOQCHAIN	4	
IOQCLR	13	3
IOQCSSPR	1E	
IOQDDTWA	30	
IOQDDTWT	24	
IOQDDTW2	7C	
IOQDORMT	17	22
IOQE	0	
IOQE_IMPORTANCE	38	70
IOQECAPTURED	1D	4
IOQEFIOPR	1F	
IOQEFLAG	1D	
IOQEFLAG1	48	
IOQEID	0	
IOQEIOMS	38	
IOQEIOQX	3C	
IOQEIOS	10	
IOQEIOSQ	48	80
IOQEIOSQD	48	40
IOQEIOS1	40	
IOQELEN	49	50
IOQELKNA	1D	20
IOQENCLV	20	
IOQENPFX	1D	40
IOQEPTR	20	
IOQEQPRI	1E	
IOQUEQUEUETIME	40	
IOQESSBP	34	
IOQESSCB	2C	
IOQESSFP	30	
IOQETID	1D	1
IOQEWPUK	1D	2
IOQEXT	0	
IOQFLA	10	
IOQFLAGS	10	
IOQFORCERCVY	1D	8
IOQHIPRI	12	FF
IOQHLT	13	2

Table 824. Cross Reference for IOQ (continued)

Name	Offset	Hex Tag
IOQID	0	
IOQIMEX	10	8
IOQINCPT	13	7
IOQINTER	13	8
IOQIOS	4	
IOQIOSB	8	
IOQIOS1	4	
IOQIOS2	20	
IOQIOS3	24	
IOQIOTCT	18	
IOQIOTQS	1D	80
IOQIRB	50	
IOQLEN	40	80
IOQMAREA	4	
IOQMDFY	13	5
IOQMERGE	10	40
IOQMIHCT	1A	
IOQMIHSF	1C	
IOQORBUA	28	
IOQPRFX0	11	
IOQPRI	12	
IOQPRVT	10	20
IOQSKIP	10	4
IOQSMGAL	17	
IOQSMGBP	8	
IOQSMGFP	4	
IOQSMGFQ	10	
IOQSMGH1	14	
IOQSMGR	10	
IOQSMGSQ	C	
IOQSMHDR	14	
IOQSMRV1	14	
IOQSMRV2	16	
IOQSNCCW	30	
IOQSNS	13	1
IOQSTART	C	
IOQSTOR	13	4
IOQSTRT	13	0
IOQST1	13	6

Table 824. Cross Reference for IOQ (continued)

Name	Offset	Hex Tag
IOQTCW	40	
IOQTYPE	13	
IOQUCB	18	
IOQWLM	10	10

## IORB information

### IORB heading information

<b>Common name:</b>	Input/Output Request Block
<b>Macro ID:</b>	ILRIORB
<b>DSECT name:</b>	IORB
<b>Owning component:</b>	Auxiliary Storage Manager (SC1CW)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Virtual Storage: YES Subpool: 245 Key: 0 Data Space: NO Residency: Above 16 Megabytes virtual
<b>Size:</b>	64 Bytes
<b>Created by:</b>	ILROPS00
<b>Pointed to by:</b>	PAREIORB field of the PARTE data area SREIORB field of the SARTE data area IORIORB field of the IORB data area PCCWIORB field of the PCCW data area
<b>Serialization:</b>	The IORB is serialized via the in-use flag, IORFUSE, which is "on" when the IORB is in use.
<b>Function:</b>	Used by ASM to track I/O requests. It contains a pointer to a save area for IOS to use, as well as pointers to other control blocks.

### IORB mapping

Table 825. Structure IORB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	64	IORB	I/O Request Block
0	(0)	CHARACTER	1	IORID	IORB identifier X'88'
1	(1)	UNSIGNED	1	IORNUM	Number of IORBs for this page data set
2	(2)	UNSIGNED	1	IORRTRY	Retry Count
3	(3)	BITSTRING	1	IORFLGS	Internal flags
		1... ....		IORFUSE	X'80' = IORB in use
		.1.. ....		IORFRPS	X'40' = RPS device

Table 825. Structure IORB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		IORSCMRQ	x'20' = IORB for SCM
		...1 ....		IORSCMAIDAW	x'10' = AIDAWs used for active/last STARTIO
		.... 1...		*	Reserved
		.... .111		IORAPND	Appendage flags
		.... .1..		IORFDI	DIE completed
		.... ..1.		IORFNE	Normal end completed flag
		.... ...1		IORFAE	Abnormal end completed flag
4	(4)	ADDRESS	4	IORIORB	Pointer to next IORB
8	(8)	CHARACTER	4	IORQPTR	PCCW or AIA ptr
8	(8)	ADDRESS	4	IORPCCW	Pointer to first PCCW
8	(8)	ADDRESS	4	IOREA0B	Pointer operation block
12	(C)	ADDRESS	4	IORIOSB	IOSB address
16	(10)	ADDRESS	4	IORSAVE	Pointer to 18-word save area
20	(14)	ADDRESS	4	IORERR	Pointer to PCCW in error
20	(14)	ADDRESS	4	IORAIDAW	Pointer to AIDAW
24	(18)	CHARACTER	8	IORTSMP	TOD clock timestamp
32	(20)	ADDRESS	4	IORPARTE	Pointer to PARTE
36	(24)	SIGNED	4	IORTREQ	Number of pages transferred using this IORB
40	(28)	SIGNED	4	IORSION	Number of STARTIOs and resumes issued using this IORB
44	(2C)	ADDRESS	4	IORNOP	Pointer to the last CCW in the channel program
48	(30)	ADDRESS	4	IOSRBP	Pointer to the SRB used by the resume service
52	(34)	SIGNED	4	IORRQSZ	Number of AIAs outstanding on this IORB
56	(38)	ADDRESS	4	IORAIAQF	Ptr to 1st AIA
60	(3C)	ADDRESS	4	IORAIAQL	Ptr to last AIA
64	(40)	CHARACTER	0	*	

Table 826. Constants for IORB

Len	Type	Value	Name	Description
1	DECIMAL	5	IORMAXRETRIES	Max retry count

Table 827. Cross Reference for IORB

Name	Offset	Hex Tag
IORAIAQF	38	
IORAIAQL	3C	
IORAIDAW	14	
IORAPND	3	07
IORB	0	
IOREA0B	8	
IORERR	14	
IORFAE	3	01

Table 827. Cross Reference for IORB (continued)

Name	Offset	Hex Tag
IORFDI	3	04
IORFLGS	3	
IORFNE	3	02
IORFRPS	3	40
IORFUSE	3	80
IORID	0	
IORIORB	4	
IORIOSB	C	
IORNOP	2C	
IORNUM	1	
IORPARTE	20	
IORPCCW	8	
IORQPTR	8	
IORRQSZ	34	
IORRTRY	2	
IORSAVE	10	
IORSCMAIDAW	3	10
IORSCMRQ	3	20
IORSION	28	
IORSRBP	30	
IORTREQ	24	
IORTSMP	18	

## IOSB information

### IOSB heading information

<b>Common name:</b>	IOS (I/O Supervisor) Block
<b>Macro ID:</b>	IECDIOSB
<b>DSECT name:</b>	IOSB
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IOSB, if IOSB extension exists Offset: 06C Length: 4 Bytes

**Storage attributes:** Subpool: Any subpool that satisfies fixed global storage attributes. Subpool 245 or 226 when obtained from the IOS storage manager.  
Key: 0  
Residency: Below the 16M line when obtained from the IOS storage manager. Other IOS drivers could obtain the IOSB from either below or above the 16M line.

**Size:** 108 bytes for basic IOSB.  
44 bytes for an in-line extension (optional).

**Created by:** User of the STARTIO service

**Pointed to by:** IOQIOSB of IECDIOQ  
SRBPARM of IHASRB  
RQESRB field of the RQE data area

**Serialization:** None

**Function:** The IOSB contains all the information needed to process an I/O request through the I/O initiation and completion. It is used to communicate between the I/O supervisor and the requestor of an I/O service, between the I/O supervisor and error-recovery procedure, between an ERP and write-to-operator and statistics-update modules, and among the components of the I/O supervisor. It is also used to control successive entries from the I/O supervisor to an ERP.

## IOSB mapping

Table 828. Structure IOSB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	156	IOSB	
0	(0)	CHARACTER	108	IOSBSTD	IOSB Standard- includes the modify and store services IOSB size.
0	(0)	CHARACTER	1	IOSFLA	Flag byte A---
	11.. ....			IOSACHN	Command & Data chaining
	1... ....			IOSDCHN	Data chaining
	.1.. ....			IOSCCHN	Command chaining
	..1. ....			IOSERR	Error routine procedure (ERP) in control. Bit must be initially set to zero by driver. If ERP returns with this bit set to a 1, a retry is assumed. If the ERP returns with the bit set to 0, the error is considered permanent or corrected depending on the setting of the IOSEX bit.
	...1 ....			IOSSMDA	ERP status modifier bit A. Must be zeroed by driver. TAPE - Reposition device. U/R - Immediate operation, CCW OP code in IOSMDB.
	.... 1...			IOSSMDB	ERP status modifier bit B. Must be zeroed by driver. Set by fetch in exit for posting. TAPE- CRC needed. DASD- PCI fetch stop flag.



Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		IOSEX	Exceptional condition. Upon return from normal or abnormal exit with this bit set to a 1, ERP processing is initiated if initial error condition. If bit is set to 0, it is assumed that the exit corrected the condition or did not consider it an error. When the ERP returns with this bit set to a 1 and the IOSERR bit set to 0, the error is considered permanent. When the ERP returns with this bit set to a 1, the error has been corrected.
		.... ..1.		IOSDOM	DOM macro required.
		.... ...1		IOSIOSB	IOS generated IOSB and obtained from the IOS storage manager.
1	(1)	CHARACTER	1	IOSFLB	Flag byte B
		1... ....		IOSDIESE	Second entry to DIE
		.1.. ....		IOSSDR	ERP doesnt want OBR
		..1. ....		IOSNOTRS	Driver does not require an address space switch on entry to DIE.
		...1 ....		IOSRESRC	IOS resources are held. Must be initialized to zero by driver. With bit set, the drivers DIE cannot return on codes 12 or 16.
		.... 1...		IOSIONRD	Set by a driver to request that the I/O request be issued to a not-ready device.
		.... .1..		IOSMSG	Message indicators for WTO service. 0 = Intervention required msg. 1 = I/O error message.
		.... ..1.		IOSBDCST	Broadcast bit
		.... ...1		IOSLOG	Create an OBR record.
2	(2)	CHARACTER	1	IOSFLC	Flag byte C
		1... ....		IOSGDPLP	With IOSGDP set, limit IOSGPMSK field to logically available paths (UCBLPM).
		.1.. ....		IOSEIDAW	Extended 4K 8-byte IDAWs
		.1.. ....		IOSVERIF	Non-DASD unsolicited device end verification needed.
		..1. ....		IOSCC3WE	Set by a driver to request deferred condition code 3 posting (post code of X'6D').
		...1 ....		IOSEXP	Set by a driver to request a specific exposure request. IOSUCB contains the specific exposure UCB address and IOSXBASE must contain the UCB prefix of the base exposure.
		.... 1...		IOSNORWS	No Read/Write Synchronization: Set on by I/O driver to indicate that the channel should not synchronize on read/write transitions when prefetching (IOSP) is also set. The driver insures that the read and writes are from different I/O buffers

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		IOS2CSWS	Two Channel Status Words: Set on by the I/O driver to indicate that when CCW prefetch is requested (IOSP), if an error occurs where the control unit executes ahead of the channel, two ending CCW addresses should be presented to the driver. The second ending CCW address is contained in the IEDB. If this bit is off, an invalid ending CCW address is simulated by IOS
		.... ..1.		IOSNORTY	No retry allowed
		.... ..1.		IOSCTCNR	CTC-No retry allowed
		.... ...1		IOSGDP	Set by a driver to indicate a guaranteed device path (GDP) request. IOSGPMSK contains the path(s) involved.
IOSPROC - This byte indicates what type of special processing that is to be performed for IOS generated IOSBs. This processing normally runs asynchronous to IOS mainline processing. This field must be set to zero by drivers. IOSPROC values are assigned by IOS. DCLs constants are provided at end of IOSB.					
3	(3)	CHARACTER	1	IOSPROC	IOSPROC field
IOSDVRID - This byte identifies the I/O driver requesting the I/O request. Driver identification values are assigned by IOS. DCLs constants are provided at end of IOSB.					
4	(4)	CHARACTER	1	IOSDVRID	Driver ID value field
5	(5)	CHARACTER	1	IOSFLD	Flag byte D
		1... ....		IOSNOINT	Set by a driver to request that the I/O request be issued to a device that has an intercept condition. The intercept condition is to be saved for the next I/O request.
		.1.. ....		IOSMNORQ	IOS is not to requeue this IOSB if a Start Pending condition is detected (MIH, etc).
		..1. ....		IOSEPCIF	Early PCI exit call Flag. Set by the I/O driver to get called from the SLIH, instead of from post status for good intermediate status.
		...1 ....		IOSCCWDS	Channel program resides in a data space. Set by the I/O driver.
		.... 1...		IOSEPCIS	Early PCI exit Space switch flag. Set by the I/O driver to indicate that IOSVSLIH should CMSET to the driver's address space prior to invoking the PCI exit.
		.... .1..		IOSLIOPF	Long I/O Post flag set by the I/O driver to indicate that driver should be posted back if the I/O request will take a long time to complete due to an MIH condition, manual intervention, etc..
		.... ..1.		IOSNOLL	Set by the driver to indicate that post status must not get the local lock in order to use the local lock save area, as deadlock could occur. IOSPSLL must also be set by the driver.
		.... ...1		IOSBEXTF	IOSB extension valid

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
6	(6)	SIGNED	2	IOSASID	Address space identification of address space to be scheduled at termination of the I/O request.
8	(8)	ADDRESS	4	IOSPGAD	I/O driver termination address. High order bit defines the addressing mode. For attention processing, this field contains the attention address.
12	(C)	BITSTRING	1	IOSPKY	Protect key of IOSPGAD
	1111 ....			*	Protect key field.
	.... 1...			IOSLCL	ASID schedule at local level
	.... .1..			IOSIDR	Asynchronous ERP scheduling should be used for this request (indirect recording for paging I/O).
	.... ..1.			IOSPGDPX	This request has a back-up copy (duplexed page)
	.... ...1			IOSCHCMP	Set by driver to indicate that the driver has built a complete channel program, IOS is not to build a standard prefix.
<p>Field IOSCOD values - I/O completion codes IOSCOD values assigned by IOS. DCLs constants are provided at the end of the IOSB.</p> <p>Completion codes 41 - 5F - Indicate permanent error conditions these codes will always be last entry codes to abnormal end exits.</p> <p>Completion codes 60 - 73 - Indicate conditions that IOS has detected in processing the I/O request.</p> <p>Completion codes 74 - 7E - Indicate abnormal conditions for which correction may be possible. These codes denote first entry to abnormal exits.</p> <p>Completion code 7F - Indicate normal I/O completion. It does not indicate that the I/O request completed successfully.</p> <p>Completion code 49 - Applies only to Store and Modify subchannel requests.</p>					
13	(D)	CHARACTER	1	IOSCOD	I/O completion code field.
IOSOPT and IOSOPT2 bit definitions - For Start Subchannel requests. See redefinition area for definitions for modify and store subchannel requests.					
14	(E)	CHARACTER	1	IOSOPT	Driver requested option byte.
	1... ....			IOSBYP	Bypass IOS channel program prefixing.
	.1.. ....			IOSDEP	Device-end post requested.
	..1. ....			IOSQISCE	For callers using the STARTIO macro compatibility interface (all others should place the quiesce level in the IOSLEVEL field). This request initiated by a request that has set the quiesce level in the UCB.
	...1 ....			IOSPSLL	If 0, Local lock needed for IOS Post Status processing. If 1, Local lock not needed.
	.... 1...			IOSNERP	If flag UCBLERP is off, ERPs are not to be used. If UCBLERP is on, ERPs will unconditionally get control. ERPs will only be allowed to perform recovery of non-error unit checks and any additional function as defined by intermediate ERP mask flags. When this flag is on, ERPs may not perform any recovery for error cases except as defined by the ERP mask flags.

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		IOSTSLL	If 0, Local lock needed by the termination routine. (IOSPSLL must be off). If 1, Local lock not needed by the termination routine
		.... ..1.		IOSAPR	Alternate path retry (APR) active. IOSGPMSK contains the available retry paths. Must be initially set to zero by driver
		.... ...1		IOSRELEASE	Request for a stand-alone release CCW to be issued
IOSOPT2 - This byte reflects the I/O driver conditions for initiating an I/O request to the subchannel. See architecture for the meaning of these conditions. This byte also reflects the IRB interrupt status.					
15	(F)	CHARACTER	1	IOSOPT2	Driver requested option byte 2
		1... ....		IOSF	CCW FORMAT----- If 0, Format 0 CCWs provided. If 1, Format 1 CCWs provided.
		.1.. ....		IOSP	If 0, the driver does not want 'unlimited CCW prefetch'. If 1, the driver wants 'unlimited CCW prefetch'
		..1. ....		IOSI	If 0, the driver does not want 'initial status interruption' generated. If 1, the driver wants 'initial status interruption' generated.
		...1 ....		IOSA	If 1, the driver requests address limit check.
		.... 1...		IOSSI	If 1, the driver requests suppress suspend interruption.
		.... .1..		IOSZ	If 1, zero condition code to initial selection (interrupt condition).
		.... ..1.		IOSE	If 1, Extended control information stored with interrupt (this bit is provided for information only, the stored data cannot be found from the IOSB).
		.... ...1		IOSN	If 1, path not operationsl.
Unit Control Block (UCB) address - address to common segment.					
16	(10)	ADDRESS	4	IOSUCB	Unit Control Block address
IOSFCSW field - Subchannel Status Word field. - See redefinition area for definitions for modify subchannel requests. Format 0 CCW requests - Start Subchannel deferred condition code is stored in the IOSCC field and the 3 byte command address in IOSCSWCA (compatible with System/370). See redefinition area for format 0 CCW.					
20	(14)	CHARACTER	8	IOSFCSW	8 byte subchannel CSW.
20	(14)	ADDRESS	4	IOSCCWAD	Format 1 CCW address. See redefinition area for format 0 usage of the word.
20	(14)	ADDRESS	4	IOSTCWAD	Ending TCW address for FCX
24	(18)	CHARACTER	2	IOSTATUS	CSW status
24	(18)	CHARACTER	1	IOSTSA	Device status
24	(18)	BITSTRING	1	IOSDSTAT	Device status
		1... ....		IOSDSATN	Attention

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		IOSDSSM	Status Modifier
		..1. ....		IOSDSCUE	Control Unit End
		...1 ....		IOSDSBSY	Busy
		.... 1...		IOSDSCE	Channel End
		.... .1..		IOSDSDE	Device End
		.... ..1.		IOSDSUC	Unit Check
		.... ...1		IOSDSUEX	Unit Exception
25	(19)	CHARACTER	1	IOSTSB	Subchannel Status
25	(19)	BITSTRING	1	IOSSSTAT	Subchannel Status
		1... ....		IOSSSPCI	Program-Controlled Interrupt
		.1.. ....		IOSSSIL	Incorrect Length
		..1. ....		IOSSSPGC	Program Check
		...1 ....		IOSSSPTC	Protection Check
		.... 1...		IOSSSCDC	Channel-Data Check
		.... .1..		IOSSSCCC	Channel-Control Check
		.... ..1.		IOSSSICC	Interface-Control Check
		.... ...1		IOSSSCC	Chaining Check
		.... ...1		IOSSSCRF	Channel subsystem retry failed
26	(1A)	ADDRESS	2	IOSCSWRC	Residual Count
26	(1A)	BITSTRING	1	IOSFCXST	FCX status
27	(1B)	UNSIGNED	1	IOSSESTAT	Subchannel extended status
		1... ....		IOSINTGFAILED	Interrogate failed
		.111 1111		IOSSESQ	Subchannel extended status qualifier - see macro IHASESQ
28	(1C)	ADDRESS	4	IOSSRB	Pointer back to drivers SRB.
32	(20)	ADDRESS	4	IOSUSE	IOSB owner use field
36	(24)	ADDRESS	4	IOSIOPID	The I/O prevention identifier (IOPID) that covers this I/O request.
Subchannel control field provided with the Subchannel status word (SCSW).					
40	(28)	BITSTRING	2	IOSSCHC	Subchannel Control field
		1... ....		*	Reserved for architecture
		.111 ....		IOSFC	Function Control field.....
		.1.. ....		IOSFSSCH	.. Start Subchannel
		..1. ....		IOSFHSC	.. Halt Subchannel
		...1 ....		IOSFCSCH	.. Clear Subchannel
40	(28)	BITSTRING	0	IOSAC	Activity Control field.....
		.... 1...		IOSARSCH	.. Resume Pending
		.... .1..		IOSASSCH	.. Start Pending
		.... ..1.		IOSAHSCH	.. Halt Pending
		.... ...1		IOSACSCH	.. Clear Pending
41	(29)	1... ....		IOSASUBA	.. Subchannel Active
		.1.. ....		IOSADEVA	.. Device Active
		..1. ....		IOSSSPND	.. Subchannel Suspended

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 1111		IOSSC	Status Control Field.....
		...1 ....		IOSSALRT	.. Alert status
		.... 1...		IOSSINTR	.. Intermediate status
		.... .1..		IOSSPRIM	.. Primary status
		.... ..1.		IOSSSEC	.. Secondary status
		.... ...1		IOSSPNDG	.. Status pending (if bit is 0, this is simulated status).
IOSSNS - With unit check, contains the first two bytes of the sense data. With field set to X'10FE', this is an indication of unsuccessful sense.					
42	(2A)	BITSTRING	2	IOSSNS	1st two bytes of sense data
End of common section - start of processing dependent sections. .. NML - Normal I/O request processing .. WTO - attention processing .. PCI - Intermediate status processing					
44	(2C)	ADDRESS	4	IOSIPIB	NML- IPIB address (IOS/Purge). Initially set to zero by driver and not to be reset by exits. PCI- Intermediate status SRB/IOSB chain pointer.
44	(2C)	BITSTRING	1	*	
45	(2D)	ADDRESS	3	IOSIPIBP	3-byte IPIB address. Used by I/O drivers who wish to reference the IPIB.
48	(30)	ADDRESS	4	IOSPCHN	NML- Pointer to 1st intermediate status SRB/IOSBs. PCI- Pointer to ending status IOSB for intermediate status SRB/IOSBs.
52	(34)	ADDRESS	4	IOSERP	ERP - Error Work Area (EWA) address provided. Must initially be set to zero by driver.
Driver Exit addresses - High order bit defines addressing mode.					
56	(38)	ADDRESS	4	IOSPCI	Intermediate status exit address or zero.
60	(3C)	ADDRESS	4	IOSNRM	Normal end exit address
64	(40)	ADDRESS	4	IOSABN	Abnormal end exit address
68	(44)	ADDRESS	4	IOSDIE	Disabled Interrupt Exit address or zero.
Real Channel program - virtual and real addresses of the first CCW or the FCX TCW					
72	(48)	ADDRESS	4	IOSRST	Real address
76	(4C)	ADDRESS	4	IOSVST	Virtual address
80	(50)	ADDRESS	4	IOSDSID	Data set ID for purge- set by driver or zero.
84	(54)	UNSIGNED	1	IOSLEVEL	IOS serialization level
85	(55)	BITSTRING	1	IOSGPMK	GDP- Guaranteed Device path mask with IOSGDP bit set. APR- Alternate Path Retry path mask with IOSAPR bit set
86	(56)	UNSIGNED	2	IOSDCTI	IRB DCTI field- the I/O request device connect time.

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
88	(58)	CHARACTER	1	IOSFMSK	Mode set/File mask
89	(59)	BITSTRING	1	IOSCKEY	On STARTIO- Channel program protect key. On interrupt- 1st byte of IRB
		1111 ....		IOSIRBKY	Protect key - bits 0-3
		.... 1...		IOSS	The I/O request has suspend capability.
		.... .1..		IOSIRBL	If 1, ESW contains logout data
		.... ..11		IOSIRBCC	SSCH deferred condition code
90	(5A)	CHARACTER	1	IOSMDB	ERP immediate CCW oper code
91	(5B)	CHARACTER	1	IOSMDM	ERP modifier mask
92	(5C)	CHARACTER	8	IOSEEK	Static seek address
92	(5C)	CHARACTER	4	*	Padding
96	(60)	CHARACTER	4	IOSCTC	Start of CTC overlay- see below
100	(64)	CHARACTER	8	IOSEEKA	Dynamic seek address
100	(64)	ADDRESS	1	IOSSKM	
101	(65)	ADDRESS	2	IOSSKBB	BB
103	(67)	CHARACTER	4	IOSCCHH	CCHH
103	(67)	ADDRESS	2	IOSSKCC	CC
105	(69)	ADDRESS	2	IOSSKHH	HH
105	(69)	ADDRESS	1	IOSSKH1	
106	(6A)	ADDRESS	1	IOSSKH2	
107	(6B)	ADDRESS	1	IOSSKR	
108	(6C)	CHARACTER	0	IOSEND	End of standard IOSB
IOSB Extension - This optional IOSB extension is indicated by the user by setting the IOSEXTF flag in byte IOSFLD. The IOSB extension is designed to be upward compatible. Note - The IOSB extension cannot grow beyond the end of the IOS large block (SRI0).					
108	(6C)	CHARACTER	48	IOSEXT	IOSB Extension
108	(6C)	CHARACTER	4	IOSXID	ID - C'IOSB'
112	(70)	SIGNED	2	IOSXLEN	IOSB extension length
114	(72)	BITSTRING	1	IOSXFLG1	Flag byte 1.....
		1... ....		IOSXNORQ	.. MIH is not to requeue this IOSB if a Start Pending condition is detected.
		.1.. ....		IOSXGDPR	.. Do I/O even if device is reserved on another path. Valid if IOSGDP bit is on.
		..1. ....		IOSXDDRT	Flag used to prevent swapping in Tape Library Environment

Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		IOSXMIHI	Flag used to inhibit MIH processing for a single request. If this bit is set, then MIH processing is disabled for this request only. This bit is applicable for STARTIO requests only and is ignored for all other requests (HSCH, CSCH, etc). This bit does not override the I/O timing facility.
		.... 1...		IOSXIOSI	Flag indicating that the I/O driver is performing non- disruptive I/O. This will cause the NTXTIOSR bit to later be set to indicate this condition to the notification exit.
		.... .1..		IOSXDPSV	DPS validation on CC3
		.... ..1.		IOSXIOSN	Set by a driver indicating to start the I/O operation even if I/O synchronization is active on the device (for IOS recovery use only).
		.... ...1		IOSXATPS	Indicates that attention processing was initiated for this I/O operation. Note: This bit is valid only in an IOS sense IOSB.
115	(73)	BITSTRING	1	IOSXFLG2	Flag byte 2.....
		1... ....		IOSXIoT	When off - IOSXTIME is for active request only. When on - IOSXTIME is for active and queued requests.
		.1.. ....		IOSXNMIH	When on - MIH should not create a logrec entry or issue a message when a timeout occurs due to IOSXTIME
		..1. ....		IOSXCPNM	When set, the Channel program is not modified by the driver during execution, other than to add CCWs at the end.
		...1 ....		IOSXIDA2	When on - 2K 8-byte IDAWs. This flag is meaningful only when IOSEIDAW is also set.
		.... 1...		IOSXPCIS	PCI Synchronization: Set on by I/O driver to indicate that the channel must synchronize after the next CCW following the the PCI (CCW+8) when prefetching (IOSP) is also set.
		.... .1..		IOSXDPMC	Set ON when Streaming Mode Control is disabled for the current I/O operation.
		.... ..1.		IOSXSILC	Suppress incorrect length for Format 1 immediate CCWs
		.... ...1		*	Reserved for future expansion of the IOSB extension- initialized to zero
116	(74)	ADDRESS	4	IOSXSSXA	Address of driver start subchannel exit to be called if the UCB is not set to the normal level. IOSXSSXV bit must be set to a 1 in order to use this field.
120	(78)	ADDRESS	4	IOSXIOBE	Address of the IOB extension.
124	(7C)	UNSIGNED	1	IOSXRCOD	Reason code detailing IOSCOD value
125	(7D)	UNSIGNED	1	IOSXTIME	Maximum time value, in seconds, that the I/O driver allows before an MIH condition is declared, regardless of the MIH setting for the device or whether MIH is being bypassed. (Mutually exclusive with IOSXMIHI, and IOS queue time is not counted) For IOS recovery use only because a timeout condition will be surfaced as an MIH condition for the device



Table 828. Structure IOSB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
126	(7E)	SIGNED	2	IOSXASPR	Asid that will be used for I/O priority queuing
128	(80)	BITSTRING	1	IOSXFLG3	Flag byte 3
		1... ....		IOSXNSER	Indicates that the device may bypass the channel program extent collision checking. Extent range enforcement will remain active. (DASD only)
		.1.. ....		IOSXNVAL	Indicates that the device is to bypass the validation checking of the paramaters on Define Extent and Locate Record commands. Extent enforcement will remain active. (DASD only)
		..1. ....		IOSXIMEX	Indicates that the driver has requested immediate execution of this I/O request. If allowed by IOS, this request will bypass the I/O priority management and assign the highest priority to this I/O request. Note: Currently, this bit is set by AOM on behalf of XRC requests utilizing the Define Subsystem Operation (DSO) CCW.
		...1 ....		IOSXALTS	An alternate timestamp is provided in the define extent or prefix CCW parameter list
		.... 1...		IOSXMIDA	The channel program uses Modified CCW Indirect Addressing (MIDAWs)
		.... .1..		IOSXFCX	This is a FICON Channel Extensions (FCX) (i.e., High Performance FICON) channel program
		.... .1..		IOSXZHPF	Alternate name for FCX
		.... ..1.		IOSXNXLA	Avoid using aliases from LSSes other than the home LSS.
		.... ...1		*	Reserved
129	(81)	CHARACTER	3	*	Reserved
132	(84)	ADDRESS	4	IOSXIOD	I/O Data Area
IOS Extension miscellaneous field. Dependent based on I/O type. Specific mappings are defined below.					
136	(88)	CHARACTER	8	IOSXMSC	Miscellaneous Field
144	(90)	ADDRESS	4	IOSXBASE	When IOSEXP is set, this field contains the corresponding PAV-base UCB prefix address
148	(94)	CHARACTER	8	IOSXRSVF	Reserved IOSB extension area- initialized to zero
156	(9C)	CHARACTER	0	IOSEEND	End of IOSB w extension

Table 829. Structure IOSXMSCN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
136	(88)	STRUCTURE	8	IOSXMSCN	IOS Extension Miscellaneous mapping for normal I/O requests.
136	(88)	CHARACTER	8	IOSEIOP	Enclave I/O priority

Table 830. Structure IOSXMSCS

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
136	(88)	STRUCTURE	8	IOSXMSCS	IOS Extension Miscellaneous mapping for sense I/O requests.
136	(88)	SIGNED	4	IOSXATI	Attention index save area. Used to preserve the attention index while processing an unsolicited interrupt with unit check status
140	(8C)	BITSTRING	1	IOSXSFLG	Sense flag byte
		1... ....		IOSXRAT2	USLRRAT2 save area. Used to preserve this bit while processing an unsolicited interrupt with unit check status
		.1.. ....		IOSXRAT3	USLRRAT3 save area. Used to preserve this bit while processing an unsolicited interrupt with unit check status
141	(8D)	CHARACTER	3	*	Reserved for future use

Table 831. Structure @NM00009

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
96	(60)	STRUCTURE	9	*	CTC overlay
96	(60)	CHARACTER	8	IOSCTCDW	Sense command byte CCW (on a doubleword boundary)
96	(60)	CHARACTER	5	*	Padding
101	(65)	CHARACTER	1	IOSCTCMD	Command byte from sense OP if format 0 CCW (IOSF= 0 )
102	(66)	CHARACTER	2	*	Padding
104	(68)	CHARACTER	1	IOSCTCOP	Command byte from sense OP if format 1 CCW (IOSF= 1 )

Table 832. Structure @NM00012

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
42	(2A)	STRUCTURE	66	*	
42	(2A)	CHARACTER	42	IOSATTNS	With UC- sense data area
42	(2A)	CHARACTER	32	IOSASNS	Sense data area
74	(4A)	CHARACTER	10	*	Reserved.

Table 833. Structure IOSATTSC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	STRUCTURE	64	IOSATTSC	
44	(2C)	CHARACTER	40	IOSATTSN	Additional sense if any
44	(2C)	CHARACTER	30	IOSATSNS	Additional sense data
74	(4A)	BITSTRING	1	IOSATPMK	Attention path mask - path mask of path on which attention interrupt was received
75	(4B)	BITSTRING	1	IOSAFLGS	Attention flags
		1... ....		IOSAINTR	Indicates that attention routine is requesting intercept processing
		.1.. ....		IOSAINT	Indicates an intercept has been generated for this attention interrupt
		..11 1111		*	Unused

Table 833. Structure IOSATTSC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
76	(4C)	ADDRESS	1	IOSAATI	Index to the attention table
77	(4D)	CHARACTER	7	*	Reserved
84	(54)	CHARACTER	24	IOSATTWA	Attention routine work area
84	(54)	CHARACTER	20	IOSXMSAV	CMSET savearea in IECTCATN
104	(68)	CHARACTER	4	*	Reserved

Table 834. Structure IOSPCISC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
44	(2C)	STRUCTURE	64	IOSPCISC	
44	(2C)	ADDRESS	4	*	IOSIPIB field- must not be used.
48	(30)	ADDRESS	4	*	IOSPCHN field- Must not be used.
52	(34)	CHARACTER	32	IOSPCIRS	Intermediate status reserved section.
84	(54)	CHARACTER	24	IOSPCIWA	Intermediate status work area

Table 835. Structure @NM00019

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	STRUCTURE	2	*	
40	(28)	CHARACTER	2	IOSAPMSK	Redefined field

Table 836. Structure @NM00020

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
20	(14)	STRUCTURE	8	*	Format 0 CCW layout.....
20	(14)	BITSTRING	1	IOSCC	Start subchannel deferred condition code (Not to be used for format 1 CCWs). The SSCH deferred condition code will always be stored (regardless of CCW format) in IOSIRBCC.
21	(15)	CHARACTER	7	IOSCSW	CSW low order 7 bytes
21	(15)	ADDRESS	3	IOSCSWCA	Last command address
24	(18)	CHARACTER	4	*	Status & residual count - see format 1 definitions above

Table 837. Structure @NM00022

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E)	STRUCTURE	1	*	
		1... ....		IOSSYN	If 1, indicates store or modify subchannel request is to be done synchronously. If 0, indicates caller can handle asynchronous issuing of store or modify subchannel.
		.1... ....		IOSNOPTH	If 1, indicates for a path message request, a conditional no path condition.
		..11 1111		*	Reserved- initialized to zero

Table 838. Structure @NM00024

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
15	(F)	STRUCTURE	1	*	
		1... ....		IOSMISC	If 1, interrupt subclass
		.1.. ....		IOSME	If 1, enabled indicator (IOS use only)
		..1. ....		IOSMLM	If 1, limit mode indicator
		...1 ....		IOSMMM	If 1, measurement mode
		.... 1...		IOSMLPM	If 1, logical path mask
		.... .1..		IOSMMBI	If 1, Measurement block index
		.... ..1.		IOSMPOM	If 1, path operational mask
		.... ...1		IOSMD	If 1, dynamic path indicator (IOS use only)

Table 839. Structure @NM00025

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1	(1)	STRUCTURE	1	*	
		1... ....		IOSMLPMO	If 1, old LPM is to be 'ored' with new LPM. If 0, old LPM is to be 'anded' with new LPM. This bit valid only if IOSMLPM is on.
		.1.. ....		IOSMPOMO	If 1, old POM is to be 'ored' with new POM. If 0, old POM is to be 'anded' with new POM. This bit valid only if IOSMPOM is on.
		..1. ....		IOSMMMO	If 1, old measurement mode is to be 'ored' with new measurement mode. If 0, old measurement mode is to be 'anded' with the new measurement mode. This bit valid only if IOSMMM is on.
		...1 ....		IOSASIS	If 1, IOSMLPMO and IOSMPOMO are ignored, and the old LPM and/or POM are to be replaced by the new LPM/POM.
		.... 1111		*	Reserved- initialized to zero

Table 840. Structure @NM00027

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
20	(14)	STRUCTURE	8	*	
20	(14)	UNSIGNED	4	IOSSID	UCB Subsystem-identification word
24	(18)	CHARACTER	4	*	Reserved

Table 841. Constants for IOSB

Len	Type	Value	Name	Description
<p>Following are the PLS declares which replace the previously defined %dclares. The fields to which the values apply are reproduced as comments. This change allows a cross reference of the names used as field values.</p> <p>Constants for the IOSCC field - deferred condition codes</p>				
1	HEX	30	IOSCC3	Deferred condition code 3
1	HEX	10	IOSCC1	Deferred condition code 1
1	HEX	00	IOSCC0	Deferred condition code 0

Table 841. Constants for IOSB (continued)

Len	Type	Value	Name	Description
Constants for the IOSIRBCC field - deferred condition codes				
0	BIT	11	IOSIRBC3	Deferred condition code 3
0	BIT	01	IOSIRBC1	Deferred condition code 1
0	BIT	00	IOSIRBC0	Deferred condition code 0
4 IOSPROC CHAR(1), SEE DCL FOR DESCRIPTION				
1	HEX	04	IOSAPCI	Intermediate Status
1	HEX	08	IOSATTN	Attention
1	HEX	0C	IOSAPURG	Purge
1	HEX	10	IOSAWAIT	Wait state or DCCF WTOR
1	HEX	14	IOSAWTO	WTO
1	HEX	18	IOSADDR	DDR
1	HEX	1C	IOSADIER	DIE redrive for different UCB
1	HEX	20	IOSAUR	Unconditional Reserve
1	HEX	F8	IOSAINTER	Interrogate
1	HEX	F9	IOSAST1	Subchannel type 1 request
1	HEX	FA	IOSASNRQ	IOS Sense Request
1	HEX	FC	IOSACLR	Clear Subchannel request
1	HEX	FD	IOSAHALT	Halt Subchannel request
1	HEX	FE	IOSAMOD	Modify Subchannel request
1	HEX	FF	IOSASTOR	Store Subchannel request
4 IOSDVRID CHAR(1), SEE DCL FOR DESCRIPTION				
1	HEX	00	IOSIOSID	Reserved for IOS
1	HEX	01	IOSMISID	Miscellaneous ID for 24 bit I/O requestors that cannot be purged, associated with a task, or violate extents
1	HEX	02	IOSXCPID	EXCP driver
1	HEX	03	IOSVSAID	VSAM driver
1	HEX	04	IOSATMID	VTAM driver
1	HEX	05	IOSTCMID	TCAM driver
1	HEX	06	IOSOLTID	OLTEP driver
1	HEX	07	IOSFCHID	Program Fetch driver
1	HEX	08	IOSJESID	JES3 driver
1	HEX	09	IOSSSL1ID	MSC driver
1	HEX	0A	IOSPRGID	IECVIOPM driver
1	HEX	0B	IOSVPSID	VPSS
'0C'X CRYPTO				
1	HEX	0E	IOSASMID	ASM Driver
1	HEX	0F	IOSMDSID	Message Display service
1	HEX	10	IOSAUSID	Assign/Unassign service
1	HEX	11	IOSDYPID	Dynamic pathing driver
1	HEX	12	IOSDAVV	IOSVDAVV driver
1	HEX	13	IOSDCSID	Device Control Service

Table 841. Constants for IOSB (continued)

Len	Type	Value	Name	Description
1	HEX	14	IOSAOMID	Asynchronous operation manager
1	HEX	15	IOSSMSID	DFSMS driver
1	HEX	16	IOSXCFID	XCF CTC I/O Driver
1	HEX	17	IOSCDRID	IOS use driver ID
1	HEX	18	IOSSLFID	IOSVSLFD driver ID
1	HEX	19	IOSPAVID	IOSVIOPA driver ID
1	HEX	1D	IOSMI2ID	Miscellaneous ID for 31 bit I/O requestors that cannot be purged, associated with a task, or violate extents
1	HEX	1E	IOSINTID	Generic IOS I/O driver ID
1	HEX	1F	IOSDACID	Discovery and AutoConfiguration
1	HEX	80	IOSV33ID	SVC33 driver
1	HEX	81	IOSCLRID	Clear Device recovery
1	HEX	82	IOSSCRID	Subchannel Recovery
1	HEX	83	IOSV16ID	SVC16 Purge driver
1	HEX	84	IOSAPRID	Unconditional Reserve (UR) Recovery driver
1	HEX	85	IOSMIHID	Missing Interrupt Handler (MIH) driver
1	HEX	86	IOSPRVID	I/O Prevention Handler driver
1	HEX	87	IOSRSVID	Re-reserve service
1	HEX	88	IOSGRSID	GRS service
1	HEX	89	IOSHSID	HyperSwap
4 IOSCOD CHAR(1), SEE DCL FOR DESCRIPTION				
1	HEX	41	IOSERRC	Permanent I/O error
1	HEX	42	IOSEXTC	Extent Error
1	HEX	43	IOSDPXC	Duplexed I/O request was not started because of the UCB level or not ready device.
1	HEX	44	IOSINTC	Request was intercepted because an error occurred after the last time the device was used and the requestors error recovery procedure wants this intercept condition treated as a permanent error.
1	HEX	45	IOSABNC	I/O request abnormally terminated because of a program check, machine check, etc. in IOS or an exit.
1	HEX	46	IOSCD46	Reserved
1	HEX	47	IOSEXTRM	I/O request not started as the driver start Subchannel exit requested termination prior to the SSCH being issued (See IOSXSSCH).
1	HEX	48	IOSPRGC	Request was purged
1	HEX	49	IOSCNCLD	Store or Modify subchannel has been cancelled
1	HEX	4A	IOSPVTIO	I/O Prevention - either the I/O request has not been started or the I/O request has been terminated.
1	HEX	4B	IOSTAPEC	Tape repositioning error
1	HEX	4C	IOSIVEXP	Invalid exposure number

Table 841. Constants for IOSB (continued)

Len	Type	Value	Name	Description
1	HEX	4D	IOSGDPCC	Deferred condition code 3 on a GDP request or while NIP in control, or with IOSGDPLP set, no logically available paths (UCBLPM).
1	HEX	4E	IOSGDPRD	GDP- Reserved device or in conjunction with IOSRELSE, device can not be released.
1	HEX	50	IOSCD50	Reserved
1	HEX	51	IOSMIHCA	The I/O Request not started- the device is in permanent error.
1	HEX	52	IOSMIHSP	IOS found the I/O request Start Pending in the subchannel, and the driver requests that the I/O request not to be retried (MIH,etc)
1	HEX	53	IOSIOTCR	IOS cancelled the I/O request due to an I/O timeout condition
1	HEX	54	IOSCAPAS	The I/O request could not be started. The current address space did not match IOSASID and a Captured UCB address was used in IOSUCB.
1	HEX	6D	IOSGDPWE	Deferred Condition Code 3 condition with the IOSCC3WE bit set.
1	HEX	71	IOSFTCHC	Hardware corrected data check for Fetch
1	HEX	74	IOSMIHC	A Simulated error status, generated by IOS
1	HEX	7D	IOSXERPL	An I/O exit requested the ERP to log this request
1	HEX	7E	IOSFINTC	Intercept condition before entrance to the ERP.
1	HEX	7F	IOSNRMC	Normal Completion
Field IOSSNS value - Bad sense indication -----				
2	HEX	10FE	IOSSNSBD	Value supplied for unsuccessful sense
Field IOSXRCOD value - Reason code detailing IOSCOD value -----				
1	HEX	09	IOSXRC9	Value indicating started I/O request timed-out
1	HEX	0A	IOSXRC10	Value indicating queued I/O request timed-out
1	HEX	0B	IOSXRC11	Value indicating PAV binding changed out from underneath IOSEXP request
1	HEX	0C	IOSXRC12	Value indicating 64-bit IDAWs requested on an unsupported host
1	HEX	0D	IOSXRC13	Value indicating an active IOQ exists with an inactive UCB.
1	HEX	0E	IOSXRC14	Value indicating that an FCX I/O was issued to a device that does not support FCX.
1	HEX	0F	IOSXRC15	Value indicating that the I/O request was terminated due to a HyperSwap being active.
1	HEX	10	IOSXRC16	Value indicating that the I/O request was terminated because a capability needed by the I/O request is not supported by the processor, device, or software

Table 841. Constants for IOSB (continued)

Len	Type	Value	Name	Description
1	HEX	11	IOSXRC17	Value indicating that the I/O request was terminated because a configuration change affected the device.
1	HEX	12	IOSXRC18	Reason code indicating an I/O done requesting override PPRC copy services failed and should be redriven without requesting override of PPRC copy services

Table 842. Cross Reference for IOSB

Name	Offset	Hex Tag
IOSA	F	10
IOSAATI	4C	
IOSABN	40	
IOSAC	28	
IOSACHN	0	C0
IOSACSCH	28	01
IOSADEVA	29	40
IOSAFLGS	4B	
IOSAHSCH	28	02
IOSAINT	4B	40
IOSAINTR	4B	80
IOSAPMSK	28	
IOSAPR	E	02
IOSARSCH	28	08
IOSASID	6	
IOSASIS	1	10
IOSASNS	2A	
IOSASSCH	28	04
IOSASUBA	29	80
IOSATPMK	4A	
IOSATSNS	2C	
IOSATTNS	2A	
IOSATTSC	2C	
IOSATTSN	2C	
IOSATTWA	54	
IOSB	0	
IOSBDCST	1	02
IOSBEXT	6C	
IOSBEXTF	5	01
IOSBSTD	0	
IOSBYP	E	80



Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
IOSCC	14	
IOSCCHH	67	
IOSCCHN	0	40
IOSCCWAD	14	
IOSCCWDS	5	10
IOSCC3WE	2	20
IOSCHCMP	C	01
IOSCKEY	59	
IOSCOD	D	
IOSCSW	15	
IOSCSWCA	15	
IOSCSWRC	1A	
IOSCTC	60	
IOSCTCDW	60	
IOSCTCMD	65	
IOSCTCNR	2	02
IOSCTCOP	68	
IOSDCHN	0	80
IOSDCTI	56	
IOSDEP	E	40
IOSDIE	44	
IOSDIESE	1	80
IOSDOM	0	02
IOSDSATN	18	80
IOSDSBSY	18	10
IOSDSCE	18	08
IOSDSCUE	18	20
IOSDSDE	18	04
IOSDSID	50	
IOSDSSM	18	40
IOSDSTAT	18	
IOSDSUC	18	02
IOSDSUEX	18	01
IOSDVRID	4	
IOSE	F	02
IOSEEK	5C	
IOSEEKA	64	
IOSEEND	9C	
IOSEIDAW	2	40

Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
IOSEND	6C	
IOSEPCIF	5	20
IOSEPCIS	5	08
IOSERP	34	
IOSERR	0	20
IOSEX	0	04
IOSEXP	2	10
IOSF	F	80
IOSFC	28	70
IOSFCSCH	28	10
IOSFCSW	14	
IOSFCXST	1A	
IOSFHSCCH	28	20
IOSFLA	0	
IOSFLB	1	
IOSFLC	2	
IOSFLD	5	
IOSFMSK	58	
IOSFSSCH	28	40
IOSGDP	2	01
IOSGDPLP	2	80
IOSGPMSK	55	
IOSI	F	20
IOSIDR	C	04
IOSINTGFAILED	1B	80
IOSIONRD	1	08
IOSIOPID	24	
IOSIOSB	0	01
IOSIPIB	2C	
IOSIPIBP	2D	
IOSIRBCC	59	03
IOSIRBKY	59	F0
IOSIRBL	59	04
IOSLCL	C	08
IOSLEVEL	54	
IOSLIOPF	5	04
IOSLOG	1	01
IOSMD	F	01
IOSMDB	5A	

Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
IOSMDM	5B	
IOSME	F	40
IOSMISC	F	80
IOSMLM	F	20
IOSMLPM	F	08
IOSMLPMO	1	80
IOSMMBI	F	04
IOSMMM	F	10
IOSMMMO	1	20
IOSMNORQ	5	40
IOSMPOM	F	02
IOSMPOMO	1	40
IOSMSG	1	04
IOSN	F	01
IOSNERP	E	08
IOSNOINT	5	80
IOSNOLL	5	02
IOSNOPTH	E	40
IOSNORTY	2	02
IOSNORWS	2	08
IOSNOTRS	1	20
IOSNRM	3C	
IOSOPT	E	
IOSOPT2	F	
IOSP	F	40
IOSPCHN	30	
IOSPCI	38	
IOSPCIRS	34	
IOSPCISC	2C	
IOSPCIWA	54	
IOSPGAD	8	
IOSPGDPX	C	02
IOSPKEY	C	
IOSPROC	3	
IOSPSLL	E	10
IOSQISCE	E	20
IOSRELSE	E	01
IOSRESRC	1	10
IOSRST	48	

Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
IOSS	59	08
IOSSALRT	29	10
IOSSC	29	1F
IOSSCHC	28	
IOSSDR	1	40
IOSSSEQ	1B	7F
IOSSSTAT	1B	
IOSSI	F	08
IOSSID	14	
IOSSINTR	29	08
IOSSKBB	65	
IOSSKCC	67	
IOSSKHH	69	
IOSSKH1	69	
IOSSKH2	6A	
IOSSKM	64	
IOSSKR	6B	
IOSSMDA	0	10
IOSSMDB	0	08
IOSSNS	2A	
IOSSPNDG	29	01
IOSSPRIM	29	04
IOSSRB	1C	
IOSSSCC	19	01
IOSSSCCC	19	04
IOSSSCDC	19	08
IOSSSCRF	19	01
IOSSSEC	29	02
IOSSSICC	19	02
IOSSSIL	19	40
IOSSSPCI	19	80
IOSSSPGC	19	20
IOSSSPND	29	20
IOSSSPTC	19	10
IOSSSTAT	19	
IOSSYN	E	80
IOSTATUS	18	
IOSTCWAD	14	
IOSTSA	18	

Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
I0STSB	19	
I0STSL	E	04
I0SUCB	10	
I0SUSE	20	
I0SVRIF	2	40
I0SVST	4C	
I0SXALTS	80	10
I0SXASPR	7E	
I0SXATI	88	
I0SXATPS	72	01
I0SXBASE	90	
I0SXCPNM	73	20
I0SXDDRT	72	20
I0SXDPVS	72	04
I0XDSMC	73	04
I0XEIOP	88	
I0XFCX	80	04
I0XFLG1	72	
I0XFLG2	73	
I0XFLG3	80	
I0XGDPR	72	40
I0XID	6C	
I0XIDA2	73	10
I0XIMEX	80	20
I0XIOBE	78	
I0XIOD	84	
I0XIOSI	72	08
I0XIOSN	72	02
I0XIOT	73	80
I0XLEN	70	
I0XMIDA	80	08
I0XMIHI	72	10
I0XMSAV	54	
I0XMSC	88	
I0XMSCN	88	
I0XMSCS	88	
I0XNMIH	73	40
I0XNORQ	72	80
I0XNSER	80	80

Table 842. Cross Reference for IOSB (continued)

Name	Offset	Hex Tag
IOSXNVAL	80	40
IOSXNXLA	80	02
IOSXPCIS	73	08
IOSXRAT2	8C	80
IOSXRAT3	8C	40
IOSXRCOD	7C	
IOSXRSVF	94	
IOSXSFLG	8C	
IOSXSILC	73	02
IOSXSSXA	74	
IOSXTIME	7D	
IOSXZHPF	80	04
IOSZ	F	04
IOS2CSWS	2	04

## IOSDCHPD information

### IOSDCHPD programming interface information

IOSDCHPD is a programming interface.

### IOSDCHPD heading information

<b>Common name:</b>	IOSCHPD ATTRIBUTES MAPPING
<b>Macro ID:</b>	IOSDCHPD
<b>DSECT name:</b>	CHPDATTR
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	CHPDA Offset: X'0' Length: 5 bytes
<b>Storage attributes:</b>	Subpool: Subpool of caller Key: Key of caller Residency: Any
<b>Size:</b>	32 bytes
<b>Created by:</b>	Caller of IOSCHPD service
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	NONE LIBRARY = AMACLIB
<b>Function:</b>	PROVIDES A MAPPING OF THE IOSCHPD ATTRIBUTES

## IOSDCHPD mapping

Table 843. Structure CHPDATTR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CHPDATTR	IOSDCHPD ATTRIBUTES LIST
0	(0)	DBL WORD	8	(0)	
0	(0)	CHARACTER	5	CHPDACRO	ACRONYM- 'Chpda'
5	(5)	CHARACTER	1	CHPDAVRS	VERSION LEVEL
6	(6)	CHARACTER	2	CHPDAR1	Reserved
8	(8)	BITSTRING	4	CHPDAFLG(0)	Attribute flags
8	(8)	BITSTRING	1	CHPDAFL1	Attribute flag one
		1... ....		CHPDAON	"X'80'" ON - Indicates ONLINE
		.1.. ....		CHPDAOFF	"X'40'" ON - Indicates OFFLINE
		..1. ....		CHPDAMAN	"X'20'" ON - Indicates MANAGED
		...1 ....		CHPDA_CHID_VALID	"X'10'" ON - Indicates that CHPDA_CHID contains a valid channel id
		.... 1...		CHPDA_CHID_EXTERNAL	"X'08'" ON - indicates that CHPDA_CHID contains an external or physical channel id (PCHID). OFF - indicates that CHPDA_CHID contains an internal channel id. This bit is valid only when CHPDA_CHID_Valid is on.
		.... .1..		CHPDA_FCX	"X'04'" ON - indicates that the FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported
		.... ..1.		CHPDA_OFFLINE_SWITCH	"X'02'" ON - indicates that the channel port is offline due to switch port decommissioning
		.... ...1		CHPDA_OFFLINE_HMC	"X'01'" ON - indicates that the channel port is offline due to HMC repair and verify
9	(9)	BITSTRING	1	CHPDAFL2	Attribute flag two
10	(A)	BITSTRING	1	CHPDAFL3	Attribute flag three
11	(B)	BITSTRING	1	CHPDAFL4	Attribute flag four
12	(C)	CHARACTER	1	CHPDATYP	Channel path type - Defined by PathInttype constants described in mapping macro IOSDPATH.
13	(D)	BITSTRING	1	CHPDA_CHPP	Channel path parameter
IQD Specific channel path parameter data					
		.... ....		CHPDA_MFS_16KB	"X'00'" 16KB frame size
		.1.. ....		CHPDA_MFS_24KB	"X'40'" 24KB frame size
		1... ....		CHPDA_MFS_40KB	"X'80'" 40KB frame size
		11.. ....		CHPDA_MFS_64KB	"X'C0'" 64KB frame size
		.... .1..		CHPDA_IQD_OSD	"X'04'" When 1, this CHPID is connected to an OSA direct-express (OSD) or OSA hybrid (OSH) channel
		.... ..1.		CHPDA_IQD_IQDX	"X'02'" When 1, this CHPID provides connectivity to the IEDN via a bridge function
END - IQD Specific channel path parameter data					
14	(E)	CHARACTER	2	CHPDA_CHID	Channel id (CHID)
16	(10)	CHARACTER	16	CHPDAR2	Reserved

Table 843. Structure CHPDATTR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	X'20'	0	CHPDALEN	"*-CHPDATTR" Length of CHPDATTR

Table 844. Cross Reference for IOSDCHPD

Name	Offset	Hex	Tag
CHPDA_CHID	E		
CHPDA_CHID_EXTERNAL	8		8
CHPDA_CHID_VALID	8		10
CHPDA_CHPP	D		
CHPDA_FCX	8		4
CHPDA_IQD_IQDX	D		2
CHPDA_IQD_OSD	D		4
CHPDA_MFS_16KB	D		0
CHPDA_MFS_24KB	D		40
CHPDA_MFS_40KB	D		80
CHPDA_MFS_64KB	D		C0
CHPDA_OFFLINE_HMC	8		1
CHPDA_OFFLINE_SWITCH	8		2
CHPDACRO	0		
CHPDAFLG	8		
CHPDAFL1	8		
CHPDAFL2	9		
CHPDAFL3	A		
CHPDAFL4	B		
CHPDALEN	10		20
CHPDAMAN	8		20
CHPDAOFF	8		40
CHPDAON	8		80
CHPDAR1	6		
CHPDAR2	10		
CHPDATTR	0		
CHPDATYP	C		
CHPDAVRS	5		

## IOSDCUIN information

### IOSDCUIN programming interface information

IOSDCUIN is a programming interface.



## IOSDCUIN heading information

**Common name:** IOS Control Unit Information Mapping

**Macro ID:** IOSDCUIN

**DSECT name:** CUIIN

**Owning component:** IOS (SC1C3)

**Eye-catcher ID:** CUIIN  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: 248 or 1, use CUIIN\_SUBPOOL when releasing storage  
Key: IOSCUINF caller's key  
Residency: Above 16M

**Size:** CUIIN\_PEERINFO -- X'0012' bytes  
CUIIN\_PathInfo\_Header -- X'0004' bytes  
CUIIN\_PathInfo -- X'0018' bytes  
CUIIN\_PeerInfo -- X'0012' bytes  
CUIIN -- X'0020' bytes  
CUIIN\_Total\_Length  
CUIINHdr -- see returned value  
CUIIN\_Header\_Length  
CUIINENTRY -- X'0090' bytes  
CUIIN\_Entry\_Length  
CUIIN\_PATHINFO\_HEADER -- X'0004' bytes  
CUIIN\_PI\_HdrLen  
CUIIN\_PATHINFO -- X'0018' bytes  
CUIIN\_PI\_EntLen

**Created by:** IOSVCIIN

**Pointed to by:** N/A

**Serialization:** N/A

**Function:** Maps the output area associated with the IOSCUINF service.

## IOSDCUIN mapping

Table 845. Structure CUIIN

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CUIIN	
0	(0)	CHARACTER	32	CUIINHDR	
0	(0)	CHARACTER	4	CUIINID	Control block id 'CUIIN'
4	(4)	BITSTRING	1	CUIIN_VERSION	Version number
5	(5)	BITSTRING	1	CUIIN_HEADER_LENGTH	Length of header
6	(6)	BITSTRING	1	CUIIN_SUBPOOL	CUIIN area subpool
7	(7)	BITSTRING	1		Reserved
8	(8)	SIGNED	4	CUIIN_TOTAL_LENGTH	Length of entire area that must be freed by the caller
12	(C)	SIGNED	4	CUIIN_COUNT	Number of control unit entries
16	(10)	SIGNED	4	CUIIN_ENTRY_LENGTH	Length of each entry that is returned
20	(14)	CHARACTER	12		Reserved
32	(20)	CHARACTER	1	CUIIN_END_V1(0)	

Table 846. Structure CUIENTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CUIENTRY	
0	(0)	CHARACTER	144	CUIN_ENTRY	Control unit entry
0	(0)	CHARACTER	16	CUIN_NUMBERS	List of unique control unit numbers
0	(0)	SIGNED	2	CUIN_NUMBER	Control unit number
16	(10)	BITSTRING	1	CUIN_NUMBER_VALID	Control unit number validity mask
17	(11)	BITSTRING	1	CUIN_CLASS	Control unit class '80'x=Tape '40'x=Communications '20'x=Direct access '10'x=Display '08'x=Unit record '04'x=Character reader All other class numbers currently are reserved for future use. (Declared constants for UCBTBYT3 in IEFUCBOB can be used.)
18	(12)	BITSTRING	1	CUIN_ATTRIBUTES	Control unit group
Bit definitions:					
		1... ....		CUIN_PAV	"X'80'" At least one Parallel Access Volume exists in this LSS
		.1.. ....		CUIN_HYPERPAV	"X'40'" HyperPAV
		..1. ....		CUIN_XPAV	"X'20'" SuperPAV (if on, CUIN_HYPERPAV will also be on).
		...1 ....		CUIN_ZHLRD_ENABLED	"X'10'" ZHL Reads enabled
		.... 1...		CUIN_ZHLWD_ENABLED	"X'08'" ZHL Writes enabled
19	(13)	BITSTRING	1	CUIN_CAPABILITY	Capabilities
Bit definitions:					
		1... ....		CUIN_ZHPF	"X'80'" zHPF Capable
		.1.. ....		CUIN_ZHLRD	"X'40'" zHL Read Capable
		..1. ....		CUIN_ZHLWD	"X'20'" zHL Write Capable
		...1 ....		CUIN_ZHLGM	"X'10'" ZHL Write GM
		.... 1...		CUIN_ZHLACCEL	"X'08'" ZHL Acceleration
		.... .1..		CUIN_HPAV	"X'04'" HyperPAV Capable
		.... ..1.		CUIN_MIDAW	"X'02'" MIDAW Capable
20	(14)	CHARACTER	32	CUIN_ND	Node descriptor
52	(34)	CHARACTER	32	CUIN_TOKEN_NED	Token NED
84	(54)	CHARACTER	32	CUIN_CU_NED	Control unit NED
116	(74)	CHARACTER	20	CUIN_STATS	Performance statistics
116	(74)	SIGNED	4	CUIN_NO_ALIAS_IO	The number of times an I/O request could not start for an LSS because no HyperPAV aliases were available and the device was not waiting for a reserve to be released from another system or long busy to subside
120	(78)	SIGNED	4	CUIN_IO_REQUESTS	The total number of HyperPAV I/O requests for the LSS
124	(7C)	SIGNED	4	CUIN_HW_ALIASES_IN_USE	The high water mark usage information on the number of in-use HyperPAV- alias devices for the LSS
128	(80)	SIGNED	4	CUIN_HW_CONCURRENT_ALIASES	The high water mark of the number of aliases concurrently in use by any HyperPAV-base for the LSS
132	(84)	SIGNED	4	CUIN_HW_IO_REQUESTS	The high water mark of IO requests

Table 846. Structure CUIENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
136	(88)	SIGNED	4	CUIN_PATHINFO_OFFSET	Offset into the CUIN structure where pathinfo data for this CUIN_Entry is returned
140	(8C)	CHARACTER	4		Reserved
144	(90)	CHARACTER	1	CUIN_ENTRY_END_V1(0)	
The following information is returned when the IOSCUINF OUTPUT_VERSION keyword indicates 2 or higher, and is a logical extension of the CUIEntry DSECT.					
144	(90)	BITSTRING	1	CUINENTRYV2(0)	
Additional statistics for control units					
144	(90)	SIGNED	4	CUIN_ANC	The number of times an alias was needed to start an I/O.
148	(94)	SIGNED	4	CUIN_AUC	The number of times an alias was needed to start an I/O and one was immediately available.
152	(98)	SIGNED	4	CUIN_NOHAC	The number of times an alias was needed to start an I/O, but none was available in the home LSS.
156	(9C)	SIGNED	4	CUIN_ABC	The number of times an alias was borrowed from a peer LSS.
160	(A0)	SIGNED	4	CUIN_CABC	The concurrent number of aliases borrowed from peer LSSes.
164	(A4)	SIGNED	4	CUIN_HWCABC	The high water mark of concurrently borrowed aliases from peer LSSes.
168	(A8)	SIGNED	4	CUIN_ALC	The number of times an alias was loaned to a peer LSS.
172	(AC)	SIGNED	4	CUIN_CALC	The concurrent number of aliases loaned to peer LSSes.
176	(B0)	SIGNED	4	CUIN_HWCALC	The high water mark of concurrently loaned aliases to peer LSSes.
180	(B4)	SIGNED	4	CUIN_NOAMGAC	The number of times an attempt to borrow an alias from peer LSSes but none were available.
184	(B8)	SIGNED	4	CUIN_CUMQD	The cumulative number of I/Os queued at the subsystem level when aliases were needed
188	(BC)	SIGNED	4	CUIN_CUMIUAC	The cumulative number of aliases defined to this subsystem that were in use when aliases were needed.
192	(C0)	SIGNED	4	CUIN_EXTAREA_OFFSET	If control unit extension areas are present, this offset, added to the start of the area returned, locates the extension area for this CUIN_Entry. If this offset is 0, no extension areas are returned.
196	(C4)	CHARACTER	12		Reserved

Table 847. Structure CUIN\_PATHINFO\_HEADER

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CUIN_PATHINFO_HEADER	PATHINFO data
0	(0)	SIGNED	2	CUIN_PI_ENTLEN	Length of each PI entry
2	(2)	BITSTRING	1	CUIN_PI_HDRLLEN	Length of CUIN_PathInfo_Header
3	(3)	BITSTRING	1	CUIN_PI_ENTRY_NUMBER	Number of PI entries

Table 847. Structure CUIIN\_PATHINFO\_HEADER (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	CHARACTER	1	CUIIN_PI_HDR_END_V1(0)	

Table 848. Structure CUIIN\_PATHINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIIN_PATHINFO	PathInfo Entry
0	(0)	SIGNED	2	CUIIN_PI_CU	Control unit number
2	(2)	SIGNED	2	CUIIN_PI_INTERFACEID	Interface Id
4	(4)	SIGNED	2	CUIIN_PI_TAG	Tag
6	(6)	BITSTRING	1	CUIIN_PI_CHPID	CHPID
7	(7)	BITSTRING	5	CUIIN_PI_FLAGS	PathInfo flags

Bit definitions:

		1111 ....		CUIIN_PI_LA_VALIDITY_FLAGS	"X'F0'" Validity flags
		1... ....		CUIIN_PI_LA_DOMAIN_VALID	"X'80'" Link address domain valid
		.1.. ....		CUIIN_PI_LA_PORT_VALID	"X'40'" Link address port valid
		..1. ....		CUIIN_PI_LA_PP_VALID	"X'20'" Link address PP valid
		...1 ....		CUIIN_PI_LA_LOGADDR_VALID	"X'10'" Link address logical address valid
		.... 1...		CUIIN_PI_FICON	"X'08'" CHPID is FICON
		.... .1..		CUIIN_PI_TAG_VALID	"X'04'" Tag field is valid
12	(C)	BITSTRING	4		Reserved
12	(C)	SIGNED	4	CUIIN_PI_LINKADDRESS	Link address
12	(C)	BITSTRING	1	CUIIN_PI_LA_DOMAIN	Domain of switch
13	(D)	BITSTRING	1	CUIIN_PI_LA_PORTADDR	Destination port address for path associated with corresponding CHPID
14	(E)	BITSTRING	1	CUIIN_PI_LA_PP	F-PORT and NL_PORT
15	(F)	BITSTRING	1	CUIIN_PI_LOGICALADDR	Logical address
16	(10)	BITSTRING	8	CUIIN_PI_WWPN	WWPN
24	(18)	CHARACTER	1	CUIIN_PI_END_V1(0)	

CUIIN\_Entry extension types

24	(18)	X'1'	0	CUIIN_EXT_TYPE_PEERINFO	"1" extension type for PeerInfo
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Table 849. Structure CUIIN\_PEERINFO

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIIN_PEERINFO	Peer CU data
0	(0)	CHARACTER	16	CUIIN_PEERINFO_HEADER	Header of block
0	(0)	SIGNED	4	CUIIN_PEERINFO_EXTTYPE	Extension type
4	(4)	SIGNED	4	CUIIN_PEERINFO_NEXTTEXTOFF	Offset to the next extension for this CUIIN_Entry, or 0 if this is the last one.
8	(8)	SIGNED	2	CUIIN_PEERINFO_COUNT	Count of Peer CUs returned
10	(A)	BITSTRING	1	CUIIN_PEERINFO_AMG#	AMG # for this AMG
11	(B)	CHARACTER	1		Reserved
12	(C)	SIGNED	4	CUIIN_PEERINFO_AMGSEQ	AMG sequence number for this system.
16	(10)	CHARACTER	1	CUIIN_PEERINFO_ENTRIES(0)	Entries

Table 849. Structure CUIIN\_PEERINFO (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
16	(10)	SIGNED	2	CUIIN_PEERINFO_CU	The list of CU numbers begin here. Each entry is 2 bytes in length.
16	(10)	X'E4C9D5'	0	CUIIN_NAME	"C'CUIIN'" Defines CUIINID
16	(10)	X'2'	0	CUIIN_CURRVRSN	"2" Current version
16	(10)	X'2'	0	CUIIN_VRSN2	"2" Version 2 constant
16	(10)	X'1'	0	CUIIN_VRSN1	"1" Version 1 constant
16	(10)	X'20'	0	CUIIN_LEN	"32" LENGTH OF HEADER, DO NOT USE.
USE CUIIN_HEADER_LENGTH INSTEAD OF CUIIN_LEN					
16	(10)	X'90'	0	CUIINENTRY_LEN	"144" LENGTH OF ENTRY, DO NOT USE
USE CUIIN_ENTRY_LENGTH INSTEAD OF CUIINENTRY_LEN					
16	(10)	X'4'	0	CUIIN_PATHINFO_HEADER_LEN	"4" LENGTH OF ENTRY, DO NOT USE
USE CUIIN_PI_HDRLEN INSTEAD OF CUIIN_PATHINFO_HEADER_LEN					
16	(10)	X'18'	0	CUIIN_PATHINFO_LEN	"24" LENGTH OF ENTRY, DO NOT USE
USE CUIIN_PI_ENTLEN INSTEAD OF CUIIN_PATHINFO_LEN					

Table 850. Cross Reference for IOSDCUIIN

Name	Offset	Hex	Tag
CUIIN	0		
CUIIN_ABC	9C		
CUIIN_ALC	A8		
CUIIN_ANC	90		
CUIIN_ATTRIBUTES	12		
CUIIN_AUC	94		
CUIIN_CABC	A0		
CUIIN_CALC	AC		
CUIIN_CAPABILITY	13		
CUIIN_CLASS	11		
CUIIN_COUNT	C		
CUIIN_CU_NED	54		
CUIIN_CUMIUAC	BC		
CUIIN_CUMQD	B8		
CUIIN_CURRVRSN	10		2
CUIIN_END_V1	20		
CUIIN_ENTRY	0		
CUIIN_ENTRY_END_V1	90		
CUIIN_ENTRY_LENGTH	10		
CUIIN_EXT_TYPE_PEERINFO	18		1
CUIIN_EXTAREA_OFFSET	C0		

Table 850. Cross Reference for IOSDCUIN (continued)

Name	Offset	Hex Tag
CUIN_HEADER_LENGTH	5	
CUIN_HPAV	13	4
CUIN_HW_ALIASES_IN_USE	7C	
CUIN_HW_CONCURRENT_ALIASES	80	
CUIN_HW_IO_REQUESTS	84	
CUIN_HWCABC	A4	
CUIN_HWCALC	B0	
CUIN_HYPERPAV	12	40
CUIN_IO_REQUESTS	78	
CUIN_LEN	10	20
CUIN_MIDAW	13	2
CUIN_NAME	10	E4C9D5
CUIN_ND	14	
CUIN_NO_ALIAS_IO	74	
CUIN_NOAMGAC	B4	
CUIN_NOHAC	98	
CUIN_NUMBER	0	
CUIN_NUMBER_VALID	10	
CUIN_NUMBERS	0	
CUIN_PATHINFO	0	
CUIN_PATHINFO_HEADER	0	
CUIN_PATHINFO_HEADER_LEN	10	4
CUIN_PATHINFO_LEN	10	18
CUIN_PATHINFO_OFFSET	88	
CUIN_PAV	12	80
CUIN_PEERINFO	0	
CUIN_PEERINFO_AMG#	A	
CUIN_PEERINFO_AMGSEQ	C	
CUIN_PEERINFO_COUNT	8	
CUIN_PEERINFO_CU	10	
CUIN_PEERINFO_ENTRIES	10	
CUIN_PEERINFO_EXTTYPE	0	
CUIN_PEERINFO_HEADER	0	
CUIN_PEERINFO_NEXTEXTOFF	4	
CUIN_PI_CHPID	6	
CUIN_PI_CU	0	
CUIN_PI_END_V1	18	
CUIN_PI_ENTLEN	0	
CUIN_PI_ENTRY_NUMBER	3	

Table 850. Cross Reference for IOSDCUIN (continued)

Name	Offset	Hex Tag
CUIN_PI_FICON	7	8
CUIN_PI_FLAGS	7	
CUIN_PI_HDR_END_V1	4	
CUIN_PI_HDRLEN	2	
CUIN_PI_INTERFACEID	2	
CUIN_PI_LA_DOMAIN	C	
CUIN_PI_LA_DOMAIN_VALID	7	80
CUIN_PI_LA_LOGADDR_VALID	7	10
CUIN_PI_LA_PORT_VALID	7	40
CUIN_PI_LA_PORTADDR	D	
CUIN_PI_LA_PP	E	
CUIN_PI_LA_PP_VALID	7	20
CUIN_PI_LA_VALIDITY_FLAGS	7	F0
CUIN_PI_LINKADDRESS	C	
CUIN_PI_LOGICALADDR	F	
CUIN_PI_TAG	4	
CUIN_PI_TAG_VALID	7	4
CUIN_PI_WWPN	10	
CUIN_STATS	74	
CUIN_SUBPOOL	6	
CUIN_TOKEN_NED	34	
CUIN_TOTAL_LENGTH	8	
CUIN_VERSION	4	
CUIN_VRSN1	10	1
CUIN_VRSN2	10	2
CUIN_XPAV	12	20
CUIN_ZHLACCEL	13	8
CUIN_ZHLGM	13	10
CUIN_ZHLRD	13	40
CUIN_ZHLRD_ENABLED	12	10
CUIN_ZHLWD	13	20
CUIN_ZHLWD_ENABLED	12	8
CUIN_ZHPF	13	80
CUINENTRY	0	
CUINENTRY_LEN	10	90
CUINENTRYV2	90	
CUINHDR	0	
CUINID	0	

## IOSDDACH information

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### IOSDDACH programming interface information

IOSDDACH is a programming interface.

### IOSDDACH heading information

<b>Common name:</b>	IOS ENF device availability change parameter list
<b>Macro ID:</b>	IOSDDACH
<b>DSECT name:</b>	DACH
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	DACH Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Above 16M line
<b>Size:</b>	DACH -- X'0040' bytes DACH_FACL_FIELDS -- X'0020' bytes DACH_FACL_DEVENTRY -- X'0004' bytes
<b>Created by:</b>	IOSRSCH (Subchannel recovery) or IOSCACDR or IOSCDCDR or IOSVLPEP or IOSVVSQR
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None



**Function:**

IOSDDACH maps the parameter list passed to the listeners of ENF code 33.

NOTES= The ENF qualifier used for this signal has the following format:

BYTE 1: Device class (Byte 3 from UCBTYP)

BYTE 2: Reserved

BYTES 3-4: Qualifier number.

Each qualifier number designates a general class of events- such as IO subchannel change or IO resource available. Along with each qualifier number is a qualifier number dependent mapping which designates fields specific to the general class of events.

The DACHTYPE field is used to designate the exact event which occurred under the given qualifier number. Since the values of DACHTYPE are unique, this field can be used to determine which qualifier number dependent area is to be used when no ENF qualifier is specified. Furthermore, it can be used in the same manner when only the device class (DACHUCBC) portion of the ENF qualifier is used. An alternate method of determining the proper mapping to use for listeners not using the ENF qualifier is through the use of the DACHQC field. This field contains a copy of the ENF qualifier used for signalling. The qualifier number which determines the mapping used is a part of DACHQC.

If the qualifier number (DACHQN) is not DACHFACL then the size is just the size of the DACH structure. If the qualifier number is DACHFACL, then the size is variable length consisting of the DACH structure, the facility change header, and one or more device entries.

## IOSDDACH mapping

Table 851. Structure DACH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DACH	ENF signal 33 parameter list
0	(0)	CHARACTER	4	DACHID	Control block ID
4	(4)	BITSTRING	1	DACHVERS	Version number
5	(5)	CHARACTER	2	DACHDEVC	Device category
7	(7)	CHARACTER	4	DACHTYPE	Type of change that occurred to the device (See constant declaration for valid types)
11	(B)	CHARACTER	1		reserved
12	(C)	CHARACTER	32	DACHQUALD	Qualifier dependent area
44	(2C)	CHARACTER	4	DACHQC(0)	Copy of ENF Qualifier.
44	(2C)	CHARACTER	1	DACHUCBC	Device class from UCBTYP field (Byte 3 of UCBTYP)
45	(2D)	CHARACTER	1		Reserved.
46	(2E)	SIGNED	2	DACHQN	DACH qualifier number field
48	(30)	CHARACTER	16	DACHRES	reserved
64	(40)	CHARACTER	1	DACHEND(0)	End of DACH parameter list
64	(40)	X'40'	0	DACH_LEN	"*-DACH"

Table 851. Structure DACH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Qualifier dependent areas follow. Qualifier dependent area for I/O subchannel change. DACHQN: DACHIO or DACHIO_AS (alternate subchannel set) DACHType: DACHIPI DACHIPM DACHIPR DACHMONC					
12	(C)	BITSTRING	1	DACH_IO_FIELDS(0)	
12	(C)	SIGNED	2	DACH_IO_DEVN	Device number undergoing a subchannel change
14	(E)	CHARACTER	4	DACH_IO_DTYP	Device type from UCBTYP
18	(12)	BITSTRING	1	DACH_IO_SSID	Subchannel set of the device number
19	(13)	BITSTRING	1	DACH_IO_QUAL	Qualifier for event (May or may not be used, depends on DACHTYPE).
19	(13)	X'1'	0	DACH_IO_QUAL_MONC_ON	"1" DACHTYPE=DACHMONC, The device identified in DACH_IO_DEVN and DACH_IO_SSID now requires monitoring
19	(13)	X'2'	0	DACH_IO_QUAL_MONC_OFF	"2" DACHTYPE=DACHMONC, one or more devices that required monitoring no longer require monitoring.
19	(13)	X'8'	0	DACH_IO_FIELDS_LEN	"*-DACH_IO_FIELDS"
Qualifier dependent area for IO resource accessible DACHQN: DACHIORA or DACHIORA_AS (alternate subchannel set) DACHType: DACHLPE					
12	(C)	BITSTRING	1	DACH_IORA_FIELDS(0)	
12	(C)	SIGNED	2	DACH_IORA_DEVN	Device number becoming accessible
14	(E)	CHARACTER	4	DACH_IORA_DTYP	Device type from UCBTYP
18	(12)	BITSTRING	1	DACH_IORA_CHPD	CHPID established.
19	(13)	BITSTRING	1	DACH_IORA_FLAGS(0)	
		1... ....		DACH_IORA_ONLI	"X'80'" On if device was online
		.1.. ....		DACH_IORA_VARY_DEV	"X'40'" On if IOS issued a VARY command in order to bring a device online that was marked offline due to CC3 during NIP
20	(14)	BITSTRING	1	DACH_IORA_SSID	Subchannel set ID associated with the IO resource
21	(15)	CHARACTER	23		Reserved
Value for DACHID					
21	(15)	X'C1C3C8'	0	DACHDACH	"C'DACH'" DACH control block ID
Value for DACHVERS					
21	(15)	X'1'	0	DACHVERC	"1" DACH version number
Value for DACHDEVC					
21	(15)	X'C9D6'	0	DACHDTIO	"C'IO'" Device undergoing subchannel change is an I/O device
21	(15)	X'C3E4'	0	DACHDTCU	"C'CU'" Device category is Control Unit
Value for DACH_TRAN_MODE					
21	(15)	X'1'	0	DACH_HYPERPAV_TRANSITION	"1" PAVMode change processing is requested for all devices in the LSS, target transition is HyperPAV mode.

Table 851. Structure DACH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
21	(15)	X'2'	0	DACH_BASEPAV_TRANSITION	"2" PAVMode change processing is requested for all devices in the LSS, target transition is Base PAV mode.
21	(15)	X'4'	0	DACH_XPAV_TRANSITION	"4" PAVMode change processing is requested for all devices in the LSS, target transition is XPAV mode.
Value for DACH_PCIE_EVENT					
21	(15)	X'1'	0	DACH_PCIE_DEVICE_ONLINE	"1" PCIE Device is online
21	(15)	X'2'	0	DACH_PCIE_DEVICE_OFFLINE	"2" PCIE Device is offline
21	(15)	X'3'	0	DACH_PCIE_PORT_STATECHG	"3" PCIE Port state change
21	(15)	X'20'	0	DACH_IORA_FIELDS_LEN	"*-DACH_IORA_FIELDS"
Qualifier dependent area for CDR change (add or delete CDR record) DACHQN: DACHCCDR DACHType: DACHACDR DACHDCDR					
12	(C)	BITSTRING	1	DACH_CCDR_FIELDS(0)	
12	(C)	CHARACTER	8	DACH_CCDR_TIMESTP(0)	TOD clock value
12	(C)	CHARACTER	4	DACH_CCDR_DATE	Date
16	(10)	CHARACTER	4	DACH_CCDR_TIME	Time
20	(14)	SIGNED	2	DACH_CCDR_DEVN	Device number undergoing a CDR change
22	(16)	CHARACTER	4	DACH_CCDR_DTYP	Device type from UCBTYP
26	(1A)	SIGNED	2	DACH_CCDR_CDRLN	Length of CDR record
28	(1C)	ADDRESS	4	DACH_CCDR_CDRA DR	Address of CDR record
32	(20)	BITSTRING	1	DACH_CCDR_CHPID	Channel path that the CDR record was obtained
32	(20)	X'15'	0	DACH_CCDR_FIELDS_LEN	"*-DACH_CCDR_FIELDS"
Qualifier dependent area for Parallel Access Volume changes. DACHQN: DACHPAV or DACHPAV_AS (alternate subchannel set) DACHType: DACHPAVS					
12	(C)	BITSTRING	1	DACH_PAV_FIELDS(0)	
12	(C)	SIGNED	2	DACH_PAV_DEVN	Device number of PAV-base device
14	(E)	CHARACTER	2	DACH_PAV_FLGS(0)	Flags
		1... ....		DACH_PAVBIND	"X'80'" Alias is bound to base
		.1.. ....		DACH_PAVUNBIND	"X'40'" Alias is unbound from base
		..1. ....		DACH_PAVUNBINDALL	"X'20'" All aliases are unbound from base
		...1 ....		DACH_PAVSCHIBDATAVALID	"X'10'" Schib data is valid
		.... 1...		DACH_PAV_BASSEMBIVALID	"X'08'" The MBI for the base device is valid
		.... .1..		DACH_PAV_ALIASMBIVALID	"X'04'" The MBI for the alias device is valid
		.... ..1.		DACH_PAV_DBT_VALID	"X'02'" The device busy time for the alias device is valid
14	(E)	BITSTRING	1		Reserved
16	(10)	SIGNED	2	DACH_PAV_CNT	Count of PAVs, including base
18	(12)	BITSTRING	1	DACH_PAV_SSIDBASE	Subchannel set ID associated with the PAV-Base dev.
19	(13)	CHARACTER	1		Reserved
20	(14)	CHARACTER	4	DACH_PAV_TOKN	PAV token after change

Table 851. Structure DACH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	CHARACTER	12	DACH_PAV_SCHIBDATA(0)	Schib Data
24	(18)	SIGNED	4	DACH_PAV_DEVICEBUSYDIME	Device busy delay time
28	(1C)	SIGNED	4	DACH_PAV_CUBUSYDIME	CU busy delay time
32	(20)	SIGNED	4	DACH_PAV_DPORTBUSYDIME	Destination port busy delay time
36	(24)	SIGNED	2	DACH_PAV_DEVNALIAS	Device number of PAV-Alias device if this is a bind or unbind request
38	(26)	SIGNED	2	DACH_PAVBASEMBI	MBI for base device
40	(28)	SIGNED	2	DACH_PAVALIASEMBI	MBI for alias device
42	(2A)	BITSTRING	1	DACH_PAV_SSIDALIAS	Subchannel set of the alias device number
43	(2B)	CHARACTER	1		Reserved
43	(2B)	X'20'	0	DACH_PAV_FIELDS_LEN	"*-DACH_PAV_FIELDS"
Qualifier dependent area for Switch table change. DACHQN: DACHSTC DACHType: DACHSWTB					
12	(C)	BITSTRING	1	DACH_ST_FIELDS(0)	
12	(C)	CHARACTER	4	DACH_SW_SWITCHNUMBER	Switch device number updated
16	(10)	CHARACTER	2	DACH_SW_PORTNUMBER	Port Address on Switch
16	(10)	X'6'	0	DACH_ST_FIELDS_LEN	"*-DACH_ST_FIELDS"
Qualifier dependent area for Device Offline and In Use by System Component DACHQN: DACHNAC DACHType: DACHNALoc					
12	(C)	BITSTRING	1	DACH_NALOC_FIELDS(0)	
12	(C)	CHARACTER	32	DACH_NALOC(0)	Device offline and in use by system component
12	(C)	ADDRESS	4	DACHNALOCUCB	UCB for device in use
44	(2C)	X'20'	0	DACH_NALOC_FIELDS_LEN	"*-DACH_NALOC_FIELDS"
Qualifier dependent area for Control Unit Transitions DACHQN: DACHTran DACHType: DACHTypeTran					
12	(C)	BITSTRING	1	DACH_TRAN_FIELDS(0)	
12	(C)	SIGNED	2	DACH_TRAN_CU	Control unit number undergoing transition
14	(E)	BITSTRING	1	DACH_TRAN_MODE	Target transition mode
15	(F)	CHARACTER	29		Reserved
15	(F)	X'20'	0	DACH_TRAN_FIELDS_LEN	"*-DACH_TRAN_FIELDS"
Qualifier dependent area for PCIE Device Event DACHQN: DACHPCIE DACHType: DACHTypePCIE					
12	(C)	BITSTRING	1	DACH_PCIE_FIELDS(0)	
12	(C)	SIGNED	4	DACH_PCIE_PFID	PFID of PCIE device involved in event
16	(10)	SIGNED	2	DACH_PCIE_DEVID	Device ID of PCIE device involved in event
18	(12)	SIGNED	2	DACH_PCIE_VENDID	Vendor ID of PCIE device involved in event
20	(14)	BITSTRING	1	DACH_PCIE_EVENT	Device event code
21	(15)	CHARACTER	23		Reserved

Table 851. Structure DACH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
21	(15)	X'20'	0	DACH_PCIE_FIELDS_LEN	"*-DACH_PCIE_FIELDS"

Table 852. Structure DACH\_FACL\_FIELDS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DACH_FACL_FIELDS	Qualifier data
0	(0)	CHARACTER	32	DACH_FACL_HDR(0)	Header information
0	(0)	SIGNED	4	DACH_FACL_DEVENTRY_COUNT	Number of device entries
4	(4)	SIGNED	2	DACH_FACL_DEVENTRY_LENGTH	Device entry length
6	(6)	CHARACTER	26		Reserved
32	(20)	CHARACTER	1	DACH_FACL_HDREND(0)	End of header
32	(20)	X'20'	0	DACH_FACL_FIELDS_LEN	"*-DACH_FACL_FIELDS"

Table 853. Structure DACH\_FACL\_DEVENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DACH_FACL_DEVENTRY	Device entry
0	(0)	BITSTRING	1	DACH_FACL_FLAGS(0)	Flags
		1... ....		DACH_FLAG_LAST	"X'80'" Last device entry
		.1.. ....		DACH_FLAG_RANGEFIRST	"X'40'" Device is the first in a range of devices
		..1. ....		DACH_FLAG_RANGELAST	"X'20'" Device is the last in a range of devices
1	(1)	BITSTRING	1	DACH_FACL_SCHSET	Subchannel set id
2	(2)	SIGNED	2	DACH_FACL_DEVNO	Device number

Values for DACH qualifier number field (DACHQN). This is part of the ENF qualifier.

.... ...1	DACHIO	"X'0001'" Qualifier value for ENF signal/listener when listening for an IO subchannel change
.... ..1.	DACHIORA	"X'0002'" Qualifier value for ENF signal/listener when listening for IO resource available.
.... ...11	DACHCCDR	"X'0003'" Qualifier value for ENF signal/listener when listening for a change CDR (add or delete Configuration Data Record)
.... .1..	DACHPAV	"X'0004'" Qualifier value for ENF signal/listener when listening for a change in the set of PAV UCBs
.... .1.1	DACHQAPI	"X'0005'" Qualifier value for ENF signal/listener when listening for a change in the Adjunct Processor Information
.... .11.	DACHSTC	"X'0006'" Qualifier value for ENF signal/listener when listening for a change in the switch table
.... .111	DACHNAC	"X'0007'" Qualifier value for ENF signal/listener when listening for an offline device in use by system component
.... 1...	DACHTRAN	"X'0008'" Qualifier value for ENF signal/listener when listening for a control unit transitioning event

Table 853. Structure DACH\_FACL\_DEVENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1..1		DACHPCIE	"X'0009'" Qualifier value for ENF signal/listener when listening for a PCIE Device event
		.... 1.1.		DACHFACL	"X'000A'" Qualifier value for ENF signal/listener when listening for a device facility/capability change event
2	(2)	BITSTRING	0	DACHIO_AS	"X'1001'" Qualifier value for ENF signal/listener when listening for an IO subchannel change for a device in an alternate subchannel set
2	(2)	BITSTRING	0	DACHIORA_AS	"X'1002'" Qualifier value for ENF signal/listener when listening for an IO resource available in an alternate subchannel set
2	(2)	BITSTRING	0	DACHPAV_AS	"X'1004'" Qualifier value for ENF signal/listener when listening for a change in the set of PAV UCBs of which a device is in an alternate subchannel set
Values for DACHTYPE field follow. These values MUST be unique even though they are further defining a specific qualifier number. The reason for this is that some listeners may not use the qualifier number field ENF qualifier, but still need to determine the exact event that occurred. Values for DACHTYPE field. These are types defining the IO subchannel change qualifier number.					
2	(2)	X'D7C940'	0	DACHIPI	"C'IPI '" Installed parameters initialized
2	(2)	X'D7D440'	0	DACHIPM	"C'IPM '" Installed parameters modified
2	(2)	X'D7D940'	0	DACHIPR	"C'IPR '" Installed parameters restored
Values for DACHTYPE field. These are types defining the IO resource available qualifier number.					
2	(2)	X'D7C540'	0	DACHLPE	"C'LPE '" Logical path established type.
Values for DACHTYPE field. These are types defining the change CDR qualifier number.					
2	(2)	X'C3C4D9'	0	DACHACDR	"C'ACDR'" Change CDR is an add CDR record
2	(2)	X'C3C4D9'	0	DACHDCDR	"C'DCDR'" Change CDR is a delete CDR record
Values for DACHTYPE field. This type is for the set of Parallel Access Volumes Alias UCBs.					
2	(2)	X'C1E5E2'	0	DACHPAVS	"C'PAVS'" Change in the set of PAV-alias devices
Values for DACHTYPE field. This type is for the Adjunct Processor Information.					
2	(2)	X'D7C940'	0	DACHAPI	"C'API '" Change in the Adjunct Processor Info
Values for DACHTYPE field. These fields define the Port Record update.					
2	(2)	X'E6E3C2'	0	DACHSWTB	"C'SWTB'" Change in the Port State

Table 853. Structure DACH\_FACL\_DEVENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Values for DACHTYPE field. This type is for the Device Offline and In Use by System Component ENF.					
2	(2)	X'C1D3C3'	0	DACHNALOC	"C'NALC'" Offline device in use
Values for DACHTYPE field. This type is for the Control Unit Transition event					
2	(2)	X'D9C1D5'	0	DACHTYPEPETRAN	"C'TRAN'" Transition
Values for DACHTYPE field. This type is for the PCIE Online/Offline event					
2	(2)	X'C3C9C5'	0	DACHTYPEPCIE	"C'PCIE'" PCIE Event
Values for DACHTYPE field. This type is for a monitor change request event					
2	(2)	X'D6D5C3'	0	DACHMONC	"C'MONC'" Monitoring change is requested
Values for DACHTYPE field. This type is for a facility or capability change request event.					
2	(2)	X'C1C3D3'	0	DACHTYPEFACL	"C'FACL'" Facility/capability change event
2	(2)	X'4'	0	DACH_FACL_DEVENTRY_LEN	"*-DACH_FACL_DEVENTRY"

Table 854. Cross Reference for IOSDDACH

Name	Offset	Hex	Tag
DACH	0		
DACH_BASEPAV_TRANSITION	15		2
DACH_CCDR_CDRADR	1C		
DACH_CCDR_CDRLLEN	1A		
DACH_CCDR_CHPID	20		
DACH_CCDR_DATE	C		
DACH_CCDR_DEVN	14		
DACH_CCDR_DTYP	16		
DACH_CCDR_FIELDS	C		
DACH_CCDR_FIELDS_LEN	20		15
DACH_CCDR_TIME	10		
DACH_CCDR_TIMESTP	C		
DACH_FACL_DEVENTRY	0		
DACH_FACL_DEVENTRY_COUNT	0		
DACH_FACL_DEVENTRY_LEN	2		4
DACH_FACL_DEVENTRY_LENGTH	4		
DACH_FACL_DEVNO	2		
DACH_FACL_FIELDS	0		
DACH_FACL_FIELDS_LEN	20		20

Table 854. Cross Reference for IOSDDACH (continued)

Name	Offset	Hex Tag
DACH_FACL_FLAGS	0	
DACH_FACL_HDR	0	
DACH_FACL_HDREND	20	
DACH_FACL_SCHSET	1	
DACH_FLAG_LAST	0	80
DACH_FLAG_RANGEFIRST	0	40
DACH_FLAG_RANGELAST	0	20
DACH_HYPERPAV_TRANSITION	15	1
DACH_IO_DEVN	C	
DACH_IO_DTYP	E	
DACH_IO_FIELDS	C	
DACH_IO_FIELDS_LEN	13	8
DACH_IO_QUAL	13	
DACH_IO_QUAL_MONC_OFF	13	2
DACH_IO_QUAL_MONC_ON	13	1
DACH_IO_SSID	12	
DACH_IORA_CHPD	12	
DACH_IORA_DEVN	C	
DACH_IORA_DTYP	E	
DACH_IORA_FIELDS	C	
DACH_IORA_FIELDS_LEN	15	20
DACH_IORA_FLAGS	13	
DACH_IORA_ONLI	13	80
DACH_IORA_SSID	14	
DACH_IORA_VARY_DEV	13	40
DACH_LEN	40	40
DACH_NALOC	C	
DACH_NALOC_FIELDS	C	
DACH_NALOC_FIELDS_LEN	2C	20
DACH_PAV_ALIASMBIVALID	E	4
DACH_PAV_BASEMBIVALID	E	8
DACH_PAV_CNT	10	
DACH_PAV_CUBUSYDTIME	1C	
DACH_PAV_DBT_VALID	E	2
DACH_PAV_DEVICEBUSYDTIME	18	
DACH_PAV_DEVN	C	
DACH_PAV_DEVNALIAS	24	
DACH_PAV_DPORTBUSYDTIME	20	
DACH_PAV_FIELDS	C	



Table 854. Cross Reference for IOSDDACH (continued)

Name	Offset	Hex Tag
DACH_PAV_FIELDS_LEN	2B	20
DACH_PAV_FLGS	E	
DACH_PAV_SCHIBDATA	18	
DACH_PAV_SSIDALIAS	2A	
DACH_PAV_SSIDBASE	12	
DACH_PAV_TOKN	14	
DACH_PAVALIASEMBI	28	
DACH_PAVBASEMBI	26	
DACH_PAVBIND	E	80
DACH_PAVSCHIBDATAVALID	E	10
DACH_PAVUNBIND	E	40
DACH_PAVUNBINDALL	E	20
DACH_PCIE_DEVICE_OFFLINE	15	2
DACH_PCIE_DEVICE_ONLINE	15	1
DACH_PCIE_DEVID	10	
DACH_PCIE_EVENT	14	
DACH_PCIE_FIELDS	C	
DACH_PCIE_FIELDS_LEN	15	20
DACH_PCIE_PFID	C	
DACH_PCIE_PORT_STATECHG	15	3
DACH_PCIE_VENDID	12	
DACH_ST_FIELDS	C	
DACH_ST_FIELDS_LEN	10	6
DACH_SW_PORTNUMBER	10	
DACH_SW_SWITCHNUMBER	C	
DACH_TRAN_CU	C	
DACH_TRAN_FIELDS	C	
DACH_TRAN_FIELDS_LEN	F	20
DACH_TRAN_MODE	E	
DACH_XPAV_TRANSITION	15	4
DACHACDR	2	C3C4D9
DACHAPI	2	D7C940
DACHCCDR	2	3
DACHDACH	15	C1C3C8
DACHDCDR	2	C3C4D9
DACHDEVC	5	
DACHDTCU	15	C3E4
DACHDTIO	15	C9D6
DACHEND	40	

Table 854. Cross Reference for IOSDDACH (continued)

Name	Offset	Hex Tag
DACHFACL	2	A
DACHID	0	
DACHIO	2	1
DACHIO_AS	2	1001
DACHIORA	2	2
DACHIORA_AS	2	1002
DACHIPI	2	D7C940
DACHIPM	2	D7D440
DACHIPR	2	D7D940
DACHLPE	2	D7C540
DACHMONC	2	D6D5C3
DACHNAC	2	7
DACHNALOC	2	C1D3C3
DACHNALOCUCB	C	
DACHPAV	2	4
DACHPAV_AS	2	1004
DACHPAVS	2	C1E5E2
DACHPCIE	2	9
DACHQAPI	2	5
DACHQC	2C	
DACHQN	2E	
DACHQUALD	C	
DACHRES	30	
DACHSTC	2	6
DACHSWTB	2	E6E3C2
DACHTRAN	2	8
DACHTYPE	7	
DACHTYPEFACL	2	C1C3D3
DACHTYPEPCIE	2	C3C9C5
DACHTYPETRAN	2	D9C1D5
DACHUCBC	2C	
DACHVERC	15	1
DACHVERS	4	

## IOSDDDCMI information

### IOSDDDCMI programming interface information

IOSDDDCMI is a programming interface.

## IOSDDDCMI heading information

**Common name:** Dynamic Channel Path Management Information Area

**Macro ID:** IOSDDDCMI

**DSECT name:** IOSDDDCMI

**Owning component:** I/O Supervisor (SC1C3)

**Eye-catcher ID:** DCMI  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: User  
Key: User  
Data Space: No  
Residency: 31 Bit

**Size:** 32-bytes

**Created by:** Issuer of IOCINFO DCMINFO service

**Pointed to by:** N/A

**Serialization:** None

**Function:** IOSDDDCMI maps the Dynamic Channel Path Management (DCM) information returned by the IOCINFO DCMINFO service.

## IOSDDDCMI mapping

Table 855. Structure DCMI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DCMI	DCM information area
0	(0)	CHARACTER	4	DCMIID	Eye catcher
4	(4)	BITSTRING	1	DCMIVERSION	DCMI version number
5	(5)	BITSTRING	3		Available
8	(8)	BITSTRING	1	DCMISTATUSFLAGS	DCM status flags
		1... ....		DCMIACTIVE	"X'80'" When set to 1, indicates that DCM is operational. When set to 0, indicates that DCM is not operational for one or more of the reasons listed below.
		.1... ....		DCMILOCALMONO	"X'40'" When set to 1, indicates the system is either XCF-local or monoplex.
		..1. ....		DCMIMULTISYSTEM	"X'20'" When set to 1, indicates the system is a member of a multisystem cluster.
		...1 ....		DCMIGOALMODE	"X'10'" When set to 1, indicates DCM is running in WLM goal mode. When set to 0, DCM is running in WLM balance mode. EQU X'08' Available EQU X'04' Available EQU X'02' Available EQU X'01' Available
9	(9)	BITSTRING	1	DCMIGLOBALREASON	DCM flags which indicate the reasons why DCM is not operational on any system in the cluster.
		1... ....		DCMINOCFCONNECT	"X'80'" When set to 1, indicates DCM is not operational because of a coupling facility connectivity error.

Table 855. Structure DCMI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		DCMINOHSATOKEN	"X'40'" When set to 1, indicates DCM is not operational because there is no HW token or there is an incompatible token in the Hardware System Area (HSA).
		..1. ....		DCMINOMGDCHPIDS	"X'20'" When set to 1, indicates DCM is not operational because there are no managed channel paths defined.
		...1 ....		DCMINOHWFACILITIES	"X'10'" When set to 1, indicates DCM is not operational because DCM facilities are not supported by the hardware.
		.... 1...		DCMISETOFF	"X'08'" When set to 1, indicates DCM is not operational because DCM was turned off by a command. EQU X'04' Available EQU X'02' Available EQU X'01' Available
10	(A)	BITSTRING	1	DCMILOCALREASON	DCM flags which indicate the reasons why DCM is not fully operational on this system image within a multisystem cluster.
		1... ....		DCMICHPTERROR	"X'80'" When set to 1, indicates the DCM Channel Path Table (CHPT) could not be built on this system image.
		.1.. ....		DCMISWTBERROR	"X'40'" When set to 1, indicates the DCM Switch Table (SWTB) could not be built on this system image.
		..1. ....		DCMINOMGDSUBSYSTEMS	"X'20'" When set to 1, indicates no DCM managed subsystems are defined or visible on this system image.
		...1 ....		DCMINOLPARSECURITY	"X'10'" When set to 1, indicates LPAR authorization failed for this system image.
		.... 1...		DCMINOALGORITHMS	"X'08'" When set to 1, indicates that DCM algorithms cannot run on this system image for one or more of
		.... .1..		DCMINODYNAMICIO	"X'04'" When set to 1, indicates that dynamic I/O changes to the channel subsystem are not allowed on this image
		.... ..1.		DCMIDCMINGROUP	"X'02'" When set to 1, indicates that the DCM Group has been joined
		.... ...1		DCMINNDEERROR	"X'01'" When set to 1, neighbor node descriptor topology has not been built
11	(B)	BITSTRING	1	DCMILOCALREASON2	DCM flags which indicate the reasons why DCM is not fully operational on this system image within a multisystem cluster.
		1... ....		DCMISWITCHTABLESYNCHRONIZED	"X'80'" When set to 1, indicates the Switch Table Synchronization completed. EQU X'40' Available EQU X'20' Available EQU X'10' Available EQU X'08' Available EQU X'04' Available EQU X'02' Available EQU X'01' Available
12	(C)	CHARACTER	20		Available

Table 856. Cross Reference for IOSDDCMI

Name	Offset	Hex Tag
DCMI	0	

Table 856. Cross Reference for IOSDDDCMI (continued)

Name	Offset	Hex Tag
DCMIACTIVE	8	80
DCMICHPTERROR	A	80
DCMIDCMINGROUP	A	2
DCMIGLOBALREASON	9	
DCMIGOALMODE	8	10
DCMIID	0	
DCMILOCALMONO	8	40
DCMILOCALREASON	A	
DCMILOCALREASON2	B	
DCMIMULTISYSTEM	8	20
DCMINNDEERROR	A	1
DCMINOALGORITHMS	A	8
DCMINOCFCONNECT	9	80
DCMINODYNAMICIO	A	4
DCMINOHSATOKEN	9	40
DCMINOHWFACILITIES	9	10
DCMINOLPARSESECURITY	A	10
DCMINOMGDCHPIDS	9	20
DCMINOMGDSUBSYSTEMS	A	20
DCMISETOFF	9	8
DCMISTATUSFLAGS	8	
DCMISWITCHTABLESYNCHRONIZED	B	80
DCMISWTBERROR	A	40
DCMIVERSION	4	

## IOSDDEVI information

### IOSDDEVI programming interface information

IOSDDEVI is a programming interface.

### IOSDDEVI heading information

<b>Common name:</b>	Device information mapping
<b>Macro ID:</b>	IOSDDEVI
<b>DSECT name:</b>	DEVI
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	none
<b>Storage attributes:</b>	Subpool: caller-provided Key: caller-provided Residency: caller-provided

**Size:** DEVI -- X'0100' bytes

**Created by:** issuer of UCBINFO DEVINFO

**Pointed to by:** N/A

**Serialization:** N/A

**Function:** Maps the input/output area for the DEVIAREA keyword associated with UCBINFO DEVINFO.

## IOSDDEVI mapping

Table 857. Structure DEVI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DEVI	DEVI information mapping
0	(0)	BITSTRING	2	DEVIFCTN	Indicates which device information areas will be filled in.
Bit definitions:					
		1... ....		DEVI0FSA	"X'80'" Indicates that the device offline reasons area is filled in.
		.1.. ....		DEVIALVA	"X'40'" Indicates that the PAV info is filled in
		..1. ....		DEVIFACA	"X'20'" Indicates that the device facilities area is filled in
2	(2)	BITSTRING	1		Reserved.
2	(2)	BITSTRING	2	DEVI0FRS	Device offline reasons. Reasons why device is being held in the offline state.
Bit definitions:					
		1... ....		DEVI0RSN	"X'80'" Offline for operator reasons.
		.1.. ....		DEVIHRSN	"X'40'" Offline for hierarchy reasons.
		..1. ....		DEVIALOC	"X'20'" Allocated offline because in use by a system component.
		...1 ....		DEVILRSN	"X'10'" Offline for tape library reasons.
		.... 1...		DEVICRSN	"X'08'" Offline for configuration manager reasons.
		.... .1..		DEVICUIR	"X'04'" Offline for conditional CUIR reasons
		.... ..1.		DEVIUCUI	"X'02'" Offline for unconditional CUIR reasons
4	(4)	BITSTRING	1		Reserved.
4	(4)	CHARACTER	8	DEVIPAVI	Parallel Access Volume Info
4	(4)	SIGNED	2	DEVIHPPC	If DEVIPAVH is on, this field contains the number of HyperPAV alias devices for the input device
6	(6)	SIGNED	2	DEVIPAVT	If DEVIPAVB is on indicating the input device is an active PAV-base, then this field contains the current total number of PAV devices associated with the input device (i.e., the count of bound PAV-alias devices plus 1 for the PAV-base). Otherwise, this field is set to zero
8	(8)	CHARACTER	2	DEVIPAVF	PAV flags

Table 857. Structure DEVI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Bit definitions:					
		1... ....		DEVIPAVC	"X'80'" PAV-base capability
		.1.. ....		DEVIPAVB	"X'40'" Indicates that the input device is an active PAV-base. This implies the PAV-base has one or more bound PAV-alias devices associated with it.
		..1. ....		DEVIPAVH	"X'20'" Indicates that the input device is a HyperPAV device. This implies that DEVIHPPC contains the count of the number of HyperPAV aliases configured for the input device
		...1 ....		DEVITEMPNOHPAV	"X'10'" HyperPAV devices for the LSS are temporarily unavailable
10	(A)	BITSTRING	1	DEVIAMAX	Maximum alias count for this device (only returned if ALIASCOUNT keyword requested on UCBINFO macro).
11	(B)	CHARACTER	1		Reserved
12	(C)	SIGNED	4	DEVIFACL	Device facilities area
12	(C)	BITSTRING	1	DEVIFACL_BYTE0	
Device facilities area byte 0 Bit definitions:					
		1... ....		DEVIFCX	"X'80'" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported
		.1.. ....		DEVIMIDA	"X'40'" Device supports MIDAWs
		..1. ....		DEVISYNCHIOR	"X'20'" Device supports synchronous I/O reads
		...1 ....		DEVISYNCHIW	"X'10'" Device supports synchronous I/O writes
		.... 1...		DEVICRS	"X'08'" Device supports consistent read from secondary
13	(D)	BITSTRING	1	DEVIFACL_BYTE1	
Device facilities area byte 1					
13	(D)	BITSTRING	1		Reserved
14	(E)	BITSTRING	1	DEVIFACL_BYTE2	
Device facilities area byte 2					
14	(E)	BITSTRING	1		Reserved
15	(F)	BITSTRING	1	DEVIFACL_BYTE3	
Device facilities area byte 3					
15	(F)	BITSTRING	1		Reserved
16	(10)	CHARACTER	2	DEVIFLAG1	Device information flags
16	(10)	BITSTRING	1	DEVIFLAG1_BYTE0	Device information flags byte 0
Bit definitions:					
		1... ....		DEVIDYNSUP	"X'80'" This device supports dynamic
		.1.. ....		DEVIDYN	"X'40'" This device is dynamic

Table 857. Structure DEVI (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		DEVIPAVW	"X'20'" Customer has requested dynamic alias tuning by WLM for this device
		...1 ....		DEVIPIN	"X'10'" This device is currently pinned
		.... 1...		DEVIUAVL	"X'08'" This device is currently unavailable for allocation
		.... .1..		DEVIMONR	"X'04'" This device should be monitored for I/O activity
		.... ..1.		DEVIXPAV	"X'02'" This device is in XPAV mode
18	(12)	BITSTRING	1	DEVIAMG	For DASD subsystems that support alias management groups, the AMG # defined on the controller for this alias management group.
19	(13)	CHARACTER	1		Reserved
20	(14)	SIGNED	4	DEVISYSAMG	For DASD subsystems that support alias management groups, the AMG # associated with this device on this system (this may vary from system to system)
24	(18)	CHARACTER	4		Reserved
28	(1C)	BITSTRING	1	DEVIFLAG2	Device flag 2
Bit definitions:					

		1... ....		DEVIRODEV	"X'80'" If 1, device is read-only
		.1... ....		DEVIROSS	"X'40'" If 1, a PPRC secondary device can vary online with read-only access. DEVIROSS is only valid when DEVIRODEV=1.
		..1. ....		DEVIRONSER	"X'20'" If 1, read access to this device is not serialized with other systems that share write access to overlapping extents. IOSXNSER is set to permit overlapping write requests. DEVIRONSER is only valid when DEVIRODEV=1.
29	(1D)	CHARACTER	227		Reserved
29	(1D)	X'100'	0	DEVI_LEN	"256"

Table 858. Cross Reference for IOSDDEVI

Name	Offset	Hex Tag
DEVI	0	
DEVI_LEN	1D	100
DEVIALOC	2	20
DEVIALVA	0	40
DEVIAMAX	A	
DEVIAMG	12	
DEVICRS	C	8
DEVICRSN	2	8
DEVICUIR	2	4
DEVIDYN	10	40
DEVIDYNSUP	10	80



Table 858. Cross Reference for IOSDDEVI (continued)

Name	Offset	Hex Tag
DEVIFACA	0	20
DEVIFACL	C	
DEVIFACL_BYTE0	C	
DEVIFACL_BYTE1	D	
DEVIFACL_BYTE2	E	
DEVIFACL_BYTE3	F	
DEVIFCTN	0	
DEVIFCX	C	80
DEVIFLAG1	10	
DEVIFLAG1_BYTE0	10	
DEVIFLAG2	1C	
DEVIHPPC	4	
DEVIHRSN	2	40
DEVILRSN	2	10
DEVIMIDA	C	40
DEVIMONR	10	4
DEVIOFRS	2	
DEVIOFSA	0	80
DEVIORSN	2	80
DEVIPAVB	8	40
DEVIPAVC	8	80
DEVIPAVF	8	
DEVIPAVH	8	20
DEVIPAVI	4	
DEVIPAVT	6	
DEVIPAVW	10	20
DEVIPIN	10	10
DEVIRODEV	1C	80
DEVIRONSER	1C	20
DEVIROSS	1C	40
DEVISYNCHIOR	C	20
DEVISYNCHIW	C	10
DEVISYSAMG	14	
DEVITEMPNOHPAV	8	10
DEVIUAVL	10	8
DEVIUCUI	2	2
DEVIXPAV	10	2

# IOSDECMX information

## IOSDECMX programming interface information

IOSDECMX is a programming interface.

## IOSDECMX heading information

<b>Common name:</b>	Extended Channel Measurement Block Extension
<b>Macro ID:</b>	IOSDECMX
<b>DSECT name:</b>	ECMX
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	ECMX Offset: 0 Length: 4
<b>Storage attributes:</b>	Key: 0 FREQUENCY: One ECMX for every DASD (including aliases), TAPE and UREC device that is connected to a subchannel
<b>Size:</b>	ECMXHEADER & ECMX - See IOCECMXLEN in IECDIOCM ECMX -- X'0000' bytes ECMXHeader -- X'000A' bytes
<b>Created by:</b>	IEAVNPC2
<b>Pointed to by:</b>	<ul style="list-style-type: none"><li>- To address an ECMX in place:</li><li>- IOCCADSALET contains the ALET of the data space containing the ECMXs. This ALET must be loaded into an access register and a SAC instruction must be issued to switch into access register mode.</li><li>- IOCECMXPtr contains the address of the array of ECMX entries within the data space. There is an array of up to 65536 entries for each subchannel set. The first element (the 0th element) in each array contains the ECMX header, which is mapped by the ECMXHeader data structure. The index for the ECMX entry assigned to the device is in the UCBMBI field of that device's UCB (if the UCBMBI value is non-zero). To compute the ECMX address for that device, multiply the subchannel set id in UCBSSID by 65536 and add that to UCBMBI. Then multiply the result by the size of an ECMX entry as described in the IOCECMXLEN field.</li><li>- To address an ECMX returned using the IOSCMCB service</li><li>- A copy of the entry for the input device is returned in the storage provided.</li></ul>
<b>Serialization:</b>	None
<b>Function:</b>	IOSDECMX maps the Extended Channel Measurement Extension

## IOSDECMX mapping

Table 859. Structure ECMX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECMX	Extended Channel Measurement Block

Table 859. Structure ECMX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	128	ECMXENTRY	Array of ECMX entries
0	(0)	CHARACTER	128	ECMXENT	
0	(0)	SIGNED	4	ECMXIOSQTIME	Cumulative measured IOSQ time, in microseconds
4	(4)	CHARACTER	4		Reserved
8	(8)	SIGNED	4	ECMXSYNREADCNT	Number of successful synchronous I/O read requests
12	(C)	SIGNED	4	ECMXSYNWRITECNT	Number of successful synchronous I/O write requests
16	(10)	SIGNED	8	ECMXSYNREADTIME	Total elapsed time for successful synchronous I/O read requests in 0.5 microsecond units
24	(18)	SIGNED	8	ECMXSYNWRITETIME	Total elapsed time for successful synchronous I/O write requests in 0.5 microsecond units
32	(20)	SIGNED	8	ECMXSYNREADBYTES	Number of synchronous I/O read bytes transferred
40	(28)	SIGNED	8	ECMXSYNWRITEBYTES	Number of synchronous I/O write bytes transferred
48	(30)	SIGNED	4	ECMXSYNREADMISS	Number of synchronous I/O read cache misses
52	(34)	SIGNED	4	ECMXSYNWRITENIS	Number of synchronous I/O write requests where the write data could not be immediately stored
56	(38)	SIGNED	4	ECMXSYNREADLINKBUSY	Number of synchronous I/O read link busy conditions
60	(3C)	SIGNED	4	ECMXSYNWRITELINKBUSY	Number of synchronous I/O write link busy conditions
64	(40)	SIGNED	4	ECMXSYNREADTIMEOUT	Number of synchronous I/O read timeout conditions
68	(44)	SIGNED	4	ECMXSYNWRITETIMEOUT	Number of synchronous I/O write timeout conditions
72	(48)	SIGNED	4	ECMXSYNREADREJ	Number of synchronous I/O read requests rejected for other reasons
76	(4C)	SIGNED	4	ECMXSYNWRITEREJ	Number of synchronous I/O write requests rejected for other reasons
80	(50)	SIGNED	4	ECMXSYNREADFAILTIME	Total elapsed time for unsuccessful synchronous I/O read requests in 0.5 microsecond units
84	(54)	SIGNED	4	ECMXSYNWRITEFAILTIME	Total elapsed time for unsuccessful synchronous I/O write requests in 0.5 microsecond units
88	(58)	CHARACTER	40		Reserved

Table 860. Structure ECMXHEADER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECMXHEADER	Extended Channel Measurement block extension header
0	(0)	CHARACTER	4	ECMXNAME	Acronym 'ECMX'
4	(4)	SIGNED	4	ECMXLENGTH	Length of ECMX array
8	(8)	BITSTRING	1	ECMXVERSION	Version of ECMX
9	(9)	BITSTRING	1	ECMXBITS	Bits

Bit definitions:

Table 860. Structure ECMXHEADER (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		11.. ....		ECMXSUBCHANNELSET	"X'C0'" Subchannel set ID
9	(9)	X'C3D4E7'	0	ECMXECMX	"C'ECMX'" Acronym for ECMXname
9	(9)	X'1'	0	ECMXCURVERS	"1" Constant for ECMXVersion

Table 861. Cross Reference for IOSDECMX

Name	Offset	Hex	Tag
ECMX	0		
ECMXBITS	9		
ECMXCURVERS	9		1
ECMXECMX	9	C3D4E7	
ECMXENT	0		
ECMXENTRY	0		
ECMXHEADER	0		
ECMXIOSQTIME	0		
ECMXLENGTH	4		
ECMXNAME	0		
ECMXSUBCHANNELSET	9		C0
ECMXSYNREADBYTES	20		
ECMXSYNREADCNT	8		
ECMXSYNREADFAILTIME	50		
ECMXSYNREADLINKBUSY	38		
ECMXSYNREADMISS	30		
ECMXSYNREADREJ	48		
ECMXSYNREADTIME	10		
ECMXSYNREADTIMEOUT	40		
ECMXSYNWRITEBYTES	28		
ECMXSYNWRITECNT	C		
ECMXSYNWRITEFAILTIME	54		
ECMXSYNWRITELINKBUSY	3C		
ECMXSYNWRITENIS	34		
ECMXSYNWRITEREJ	4C		
ECMXSYNWRITETIME	18		
ECMXSYNWRITETIMEOUT	44		
ECMXVERSION	8		

## IOSDE63R information

### IOSDE63R programming interface information

IOSDE63R is a programming interface.

## IOSDE63R heading information

**Common name:** IOS ENF-63 Record  
**Macro ID:** IOSDE63R  
**DSECT name:** E63R  
**Owning component:** IOS (SC1C3)  
**Eye-catcher ID:** E63R  
 Offset: 0  
 Length: 4  
  
**Storage attributes:** Main Storage: Yes  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: 245  
 Key: 0  
 Data Space: N/A  
 Residency: Above 16M Line  
  
**Size:** 128-Bytes  
**Created by:** IOSVHSWP (via the IOSHSWAP macro)  
**Pointed to by:** Not Applicable  
**Serialization:** None  
**Function:** IOSDE63R maps the information passed to listeners of the Event Notification (ENF) code that signals when a permanent error has occurred for a device in a logical subsystem (LSS)

## IOSDE63R mapping

Table 862. Structure E63R

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	E63R	IOS ENF 63 Record
0	(0)	CHARACTER	4	E63RID	Control block ID
4	(4)	SIGNED	1	E63RVERSION	Version number
5	(5)	BITSTRING	1	E63RSOURCE	Source of this ENF request
		.... ....		E63RSOURCEUNK	"X'00'" Source is unknown
		.... ...1		E63RSOURCEERP	"X'01'" Error Recovery Procedures (ERP) processing
		.... ..1.		E63RSOURCENOP	"X'02'" No operational paths processing
		.... ..11		E63RSOURCEBOX	"X'03'" Device box processing
EQU X'04' Reserved for GDPS/IOS use					
		.... .1.1		E63RSOURCEEOS	"X'05'" Device end-of-sense (EOS) exit processing
		.... .11.		E63RSOURCEIOT	"X'06'" IO Timing (IOT) processing
		.... 1...		E63RSOURCECU	"X'08'" Controller health event
		.... 1..1		E63RSOURCECMD	"X'09'" SETIOS Hyperswap command
6	(6)	SIGNED	2	E63RDEVNUM	Device number of the device that caused this ENF signal

Table 862. Structure E63R (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	CHARACTER	32	E63RTOKENNED	Token NED of the subsystem for the device (Zeros if no subsystem data exists for the device).
40	(28)	SIGNED	1	E63RSSID	Subchannel Set ID
41	(29)	BITSTRING	1	E63RFLAGS	Flag byte
		1... ....		E63RNDSS	"X'80'" Non-Disruptive state save (NDSS) is to be requested
42	(2A)	CHARACTER	86		Available

Table 863. Cross Reference for IOSDE63R

Name	Offset	Hex	Tag
E63R	0		
E63RDEVNUM	6		
E63RFLAGS	29		
E63RID	0		
E63RNDSS	29		80
E63RSOURCE	5		
E63RSOURCEBOX	5		3
E63RSOURCECMD	5		9
E63RSOURCECU	5		8
E63RSOURCEEOS	5		5
E63RSOURCEERP	5		1
E63RSOURCEIOT	5		6
E63RSOURCENOP	5		2
E63RSOURCEUNK	5		0
E63RSSID	28		
E63RTOKENNED	8		
E63RVERSION	4		

## IOSDFBA information

### IOSDFBA programming interface information

IOSDFBA is a programming interface.

### IOSDFBA heading information

<b>Common name:</b>	IOSFBA Interface Mappings
<b>Macro ID:</b>	IOSDFBA
<b>DSECT name:</b>	IOSDFBA
<b>Owning component:</b>	IOS (SC1C3) ACRONYM: None
<b>Eye-catcher ID:</b>	none

**Storage attributes:** Subpool: caller-provided  
Key: caller-provided  
Residency: caller-provided

**Size:**

FBADL	-- X'0020' bytes
FBADL_DEVICE_ENTRY	-- X'0010' bytes
FBADDL	-- X'0018' bytes
FBADDL_DDE@	-- X'0008' bytes
FBADDE	-- X'00B0' bytes
FBADIOL	-- X'0010' bytes
FBADIOL_DIOE@	-- X'0008' bytes
FBADIOE	-- X'0030' bytes
FBADIOE_EXTENTRY@	-- X'0008' bytes
FBAEE	-- X'0048' bytes
FBAEE_BUFENT	-- X'0010' bytes

**Created by:** See individual control block

**Pointed to by:** N/A

**Serialization:** None

**Function:**

Maps the input/output areas for the IOSFBA macro.  
IOSDFBA maps several input and output areas used by the zFBA service.

FBADL and FBADL\_DEVICE\_ENTRY

Is an input for the ALLOCATE and QUERY functions. The FBADL indicates the number of devices and the device numbers that are to be allocated or queried. The FBADL and FBADL\_DEVICE\_ENTRY are pointed to by the DEVLSTPTR or DEVLSTPTR64 (when AMODE=64) parameter for either IOSFBA ALLOCATE or IOSFBA QUERY invocations.

```

+-----+
|FBADL      |
|- eye catcher |
|- version    |
|- hdr length  |
|- entry length|
|- device count|
+-----+
|FBADL_DEVICE_ENTRY (1) |
| one for each device |
|- Device      |
|- subchannel set |
|- device number |
|- Flags       |
|- DD Name     |
+-----+
|FBADL_DEVICE_ENTRY (2) |
| one for each device |
|- Device      |
|- subchannel set |
|- device number |
|- Flags       |
|- DD Name     |
+-----+
|.            |
|.            |
|.            |
|.            |
+-----+
|FBADL_DEVICE_ENTRY (n) |
| one for each device |
|- Device      |
|- subchannel set |
|- device number |
|- Flags       |
|- DD Name     |
+-----+

```

FBADDL, FBADDL\_DDE\_ENTRY, and FBADDE

Is an output for the ALLOCATE and QUERY functions and an input for UNALLOCATE function. FBADDL is pointed to by the DEVDESCPTR or DEVDESCPTR64 (when AMODE=64) for either IOSFBA ALLOCATE, IOSFBA ERASE, IOSFBA QUERY, or IOSFBA UNALLOCATE invocations.



For ALLOCATE and QUERY processing, the FBADDL (and related control blocks) storage is obtained either in 31 bit storage or 64 bit storage depending on the AMODE of the caller. The FBADDL (and related control blocks) is initialized with device specific information. A FBADDL\_DDE\_ENTRY exists (and thus an FBADDE) for each device that is successfully allocated or queried. For UNALLOCATE processing, the FBADDL provides a list of the devices to be unallocated.

It is the responsibility of the caller to release the storage associated with the FBADDL.

```

+-----+
|FBADDL      | +----->+-----+
|- eye catcher | | |FBADDE(3) | | | |
|- version     | | +----->+-----+ |
|- subpool if AMODE(31) | | |FBADDE(2) | |
|- header length | | | +----->+-----+ | |
|- total length  | | | |FBADDE(1) | | |
|- device count  | | | |- eye catcher | | |
+-----+ | | |- version | | |
|FBADDL_DDE_ENTRY(1) +----)->+ | - length of entry | | |
+-----+ | | | - Device | | |
|FBADDL_DDE_ENTRY(2) +----)->+ | - subchannel set | | |
+-----+ | | | - device number | | |
|FBADDL_DDE_ENTRY(3) +----+ | - UCBPtr | | |
+-----+ | | | - IO NED | | |
|FBADDL_DDE_ENTRY(4) | | | - Number of blocks for | | |
+-----+ | | | device | | |
| . | | | - Starting block number | | |
| . | | | for device | | |
| . | | | - User/Caller area | | |
| . | | | - Return/reason codes | | |
+-----+ | | | - DD Name | | |
|FBADDL_DDE_ENTRY(n) | | | - Token | | |
+-----+ | | | - Physical block size | | +
|- Flags | +
+-----+

```

FBADIOL, FBADIOL\_DIOE, FBADIOE, and FBAEE

Used as input for READ and WRITE processing. The FBADIOL (and related control blocks) contain a count and list of pointers to I/O entries. FBADIOL is pointed to by the DEVIOLISTPTR or DEVIOLISTPTR64 (when AMODE=64) for either the IOSFBA READ or IOSFBA WRITE invocations.

The FBADIOL specifies the number of devices that will participate in the READ or WRITE request. The FBADIOL contains a pointer to the device I/O entry for each device (mapped by the FBADIOE).

The FBADIOL is immediately followed by one or more FBADIOL DEVICE I/O Entry addresses (FBADIOL\_DIOE@). Each FBADIOL\_DIOE address an FBA Device I/O Entry (FBADIOE).

The caller of the IOSFBA service is responsible for obtaining and freeing the storage associated for the FBADIOL and related control blocks. Additionally, when invoking the READ or WRITE request, the FBADIOL and related control blocks should be

properly initialized.

```

+-----+
|FBADIOL      | +----->+-----+
|- eye catcher | |      |FBADIOE(3)      | | |
|- version     | | +----->+-----+ |
|- header length | ||      |FBADIOE(2)      ||
|- DIOE count   | || +->+-----+ ||
+-----+ || |FBADIOE(1)      || |
|FBADIOL_DIOE@(1) +----)-)+ |- eye catcher || |
+-----+ || | - version      || |
|FBADIOL_DIOE@(2) +----)-+ |- header length || |
+-----+ | | - count of extent || |
|FBADIOL_DIOE@(3) +----+ | entries      || |
+-----+ | - PTR to FBADDE for || |
|.          | | device (see above) || |
|.          | | - PTR to status block || |
|.          | | mapped by IOSDIOST || |
|.          | | +-----+ || |
+-----+ +-----+FBIOE_EXTENTRY(1) || |
|FBADIOL_DIOE@(n) | | +-----+ || |
+-----+ | +-----+FBIOE_EXTENTRY(2) || |
|| +-----+ || |
+-----+ | +-----+FBIOE_EXTENTRY(3) || |
| +-----+ | +-----+ || | | |
|| +-----+ |FBIOE_EXTENTRY(4) || |
|| | +-----+ || |
|| V          |.          || |
|| +-----+ |.          || |
| V |FBAEE(3)   | |.          || |
| +-----+ | |.          || |
V |FBAEE(2)     || +-----+ | - +
+-----+ || |FBIOE_EXTENTRY(n) | - +
|FBAEE(1)       || | +-----+
|- eye catcher  || |
|- version      || |
|- header length || |
|- entry length  || |
|- device info   || |
| - starting block # || |
| - count of blocks || |
|- buffer info   || |
| - count of buffers || |
| - flags        || |
+-----+ || |
|FBAEE_BUFENT(1) || |
|- PTR to I/O buffer || |
|- length of I/O buffer || |
+-----+ || |
|FBAEE_BUFENT(2) || |
|- PTR to I/O buffer || |
|- length of I/O buffer || |
+-----+ || |

```

```

|FBAEE_BUFENT(3)   |||
|- PTR to I/O buffer |||
|- length of I/O buffer |||
+-----+ ||
|.           |||
|.           |||
|.           |||
|.           |||
+-----+ ||
|FBAEE_BUFENT(n)   |||
|- PTR to I/O buffer ||-+
|- length of I/O buffer |-+
+-----+

```

## IOSDFBA mapping

Table 864. Structure FBADL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADL	Device number list for IOSFBA
0	(0)	CHARACTER	32	FBADL_HDR(0)	
0	(0)	CHARACTER	8	FBADL_EYE	Eyecatcher
8	(8)	BITSTRING	1	FBADL_VERS	Version
9	(9)	CHARACTER	1		Reserved
10	(A)	SIGNED	2	FBADL_HDRLLEN	Length of header
12	(C)	SIGNED	2	FBADL_ENTLEN	Length of entry
14	(E)	SIGNED	2	FBADL_LENGTH	Total length of the FBADL and FBADL_DEVICE_ENTRY blocks
16	(10)	SIGNED	4	FBADL_COUNT	Count of device entries
20	(14)	CHARACTER	12		Reserved
20	(14)	X'20'	0	FBADL_LEN	"*-FBADL"

Table 865. Structure FBADL\_DEVICE\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADL_DEVICE_ENTRY	
0	(0)	CHARACTER	4	FBADL_DEVICE(0)	Entry for a device
0	(0)	CHARACTER	1		Reserved
1	(1)	BITSTRING	1	FBADL_SS	Subchannel set id
2	(2)	SIGNED	2	FBADL_DEVN	Device number
4	(4)	BITSTRING	1	FBADL_FLAGS(0)	Status flags set by IOSFBA
	1... ....			FBADL_ALREADYALLOC	"X'80'" This device is already allocated. The device could not be allocated because it is already allocated by another request/system
	.1.. ....			FBADL_ALLOCATED	"X'40'" This device is allocated. For an ALLOCATE request, this device was allocated for this request. For a QUERY request, this device is currently allocated.
	..1. ....			FBADL_NOTUSABLE	"X'20'" This device is not usable. Either the device is not connected, not online, an I/O error occurred, or is otherwise not usable.
	...1 ....			FBADL_NOTFBA	"X'10'" This device is not usable because the device is not a zFBA device.

Table 865. Structure FBADL\_DEVICE\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	CHARACTER	3		Reserved
8	(8)	CHARACTER	8	FBADL_DDNAME	For IOSFBA ALLOCATE requests, if non zero, this DDNAME should be used if this device is allocated.
8	(8)	X'C2C1C4'	0	FBADL_EYEVAL_0T03	"C'FBAD'" This is the first 4-byte segment of an 8-byte constant.
8	(8)	X'404040'	0	FBADL_EYEVAL_4T07	"C'L '" This is the second 4-byte segment of an 8-byte constant.
8	(8)	X'0'	0	FBADL_VERSVAL	"0"
8	(8)	X'10'	0	FBADL_DEVICE_ENTRY_LEN	"*-FBADL_DEVICE_ENTRY"

Table 866. Structure FBADDL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADDL	
0	(0)	CHARACTER	24	FBADDL_HDR(0)	
0	(0)	CHARACTER	8	FBADDL_EYE	Eyecatcher
8	(8)	BITSTRING	1	FBADDL_VERS	Version
9	(9)	BITSTRING	1	FBADDL_SP	Subpool, if storage is in 31-bit storage.
10	(A)	SIGNED	2	FBADDL_HDRLEN	Length of header
12	(C)	SIGNED	4	FBADDL_LENGTH	Total length of the FBADDL and the FBADDE blocks
16	(10)	SIGNED	4	FBADDL_COUNT	Count of entries in this list
20	(14)	CHARACTER	4		Reserved
24	(18)	CHARACTER	1	FBADDL_DDEAREA(0)	
24	(18)	X'18'	0	FBADDL_LEN	"*-FBADDL"

Table 867. Structure FBADDL\_DDE@

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADDL_DDE@	
Address of the device descriptor entry (FBADDE)					
0	(0)	CHARACTER	4		
4	(4)	ADDRESS	4	FBADDL_DDE31@	31-bit pointer of the device descriptor entry
4	(4)	X'C2C1C4'	0	FBADDL_EYEVAL_0T03	"C'FBAD'" This is the first 4-byte segment of an 8-byte constant.
4	(4)	X'D34040'	0	FBADDL_EYEVAL_4T07	"C'DL '" This is the second 4-byte segment of an 8-byte constant.
4	(4)	X'0'	0	FBADDL_VERSVAL	"0"
4	(4)	X'8'	0	FBADDL_DDE@_LEN	"*-FBADDL_DDE@"

Table 868. Structure FBADDE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADDE	
0	(0)	CHARACTER	8	FBADDE_EYE	Eyecatcher
8	(8)	BITSTRING	1	FBADDE_VERS	Version

Table 868. Structure FBADDE (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
9	(9)	BITSTRING	1	FBADDE_ACCESS(0)	Indicates how the device is to be accessed
		1... ....		FBADDE_ACCESS_SINGLE	"X'80'" When set device access is single
		.1.. ....		FBADDE_ACCESS_READ	"X'40'" When set device access is read
		..1. ....		FBADDE_ACCESS_WRITE	"X'20'" When set device access is write
		...1 ....		FBADDE_ACCESS_ANY	"X'10'" When set device access is any
10	(A)	CHARACTER	4		Reserved
14	(E)	SIGNED	2	FBADDE_LENGTH	Length of this entry
16	(10)	CHARACTER	4	FBADDE_DEVICE(0)	Entry for a device
16	(10)	CHARACTER	1		Reserved
17	(11)	BITSTRING	1	FBADDE_SS	Subchannel set id
18	(12)	SIGNED	2	FBADDE_DEVN	Device number
20	(14)	ADDRESS	4	FBADDE_UCBPTR	UCB Address
24	(18)	CHARACTER	32	FBADDE_IONED	I/O Node Element Descriptor, read from self description (see the IHACDR macro for a mapping of a NED)
FBADDE_BLKCOUNT, FBADDE_BLKSTART, and FBADDE_PHYRECSIZE are set by the IOSFBA service and should not be changed by the caller of the IOSFBA service since these fields are set based on the device. Changing these fields will result in unpredictable behavior.					
56	(38)	SIGNED	8	FBADDE_BLKCOUNT(0)	Block count for this device
56	(38)	CHARACTER	4		
60	(3C)	SIGNED	4	FBADDE_BLKCOUNT31	Block count for this device, 31-bit format
64	(40)	SIGNED	8	FBADDE_BLKSTART(0)	Starting block for this device
64	(40)	CHARACTER	4		
68	(44)	SIGNED	4	FBADDE_BLKSTART31	Starting block for this device device, 31-bit format
72	(48)	CHARACTER	16	FBADDE_USER	For use by invoker, will not be modified by IOSFBA service
88	(58)	SIGNED	4	FBADDE_RC(0)	For unallocation requests, this field will indicate the status of the allocation request
88	(58)	BITSTRING	1	FBADDE_COD	For ERASE functions, when FBADDL_EraseFailed was set for this device, this field contains the IOSCOD field from the failed I/O attempt.
89	(59)	BITSTRING	1	FBADDE_RCOD	For ERASE functions, when FBADDL_EraseFailed was set for this device, this field contains the IOSXRCOD field from the failed I/O attempt.
92	(5C)	SIGNED	4	FBADDE_RSN	For unallocation requests, this field will indicate the status of the allocation request
96	(60)	CHARACTER	8	FBADDE_DDNAME	Specifies the DDNAME used when the device was allocated by the ALLOCATE service. For the QUERY service the DDNAME is set to nulls ('00'x).
104	(68)	CHARACTER	4	FBADDE_TOKEN	Token - Used by IOS
108	(6C)	CHARACTER	16	FBADDE_TTOKEN	TTOKEN - Used by IOS

Table 868. Structure FBADDE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
124	(7C)	SIGNED	2	FBADDE_PHYRECSIZE	Physical record size
126	(7E)	CHARACTER	1	FBADDE_FLAGS(0)	Flags for IOSFBA use only
		1... ....		FBADDE_1STIODONE	"X'80'" Indicates first I/O to the device after allocation
		.1... ....		FBADDE_ERASEFAILED	"X'40'" If the ERASE function was requested, the ERASE processing failed for this device. The FBADDE_COD and FBADDE_RCOD field in the FBADDE entry for this device reflect the IOSCOD and IOSRCOD for the I/O
		..1. ....		FBADDE_NOERASEATTEMPTED	"X'20'" If the ERASE function was requested, the ERASE processing was not performed because no blocks were known to have been processed by an IOSFBA READ or IOSFBA WRITE request.
127	(7F)	CHARACTER	1		Reserved
128	(80)	CHARACTER	32	FBADDE_IOSUSE	Reserved for IOS use
160	(A0)	CHARACTER	16		Reserved
160	(A0)	X'C2C1C4'	0	FBADDE_EYEVAL_0T03	"C'FBAD'" This is the first 4-byte segment of an 8-byte constant.
160	(A0)	X'C54040'	0	FBADDE_EYEVAL_4T07	"C'DE '" This is the second 4-byte segment of an 8-byte constant.
160	(A0)	X'0'	0	FBADDE_VERSVAL	"0"
160	(A0)	X'B0'	0	FBADDE_LEN	"*-FBADDE"

Table 869. Structure FBADIOL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADIOL	
0	(0)	CHARACTER	16	FBADIOL_HDR(0)	
0	(0)	CHARACTER	8	FBADIOL_EYE	Eyecatcher
8	(8)	BITSTRING	1	FBADIOL_VERS	Version
9	(9)	CHARACTER	1		Reserved
10	(A)	SIGNED	2	FBADIOL_HDRLN	Length of header
12	(C)	SIGNED	4	FBADIOL_COUNT	Count of entries in this list
16	(10)	CHARACTER	1	FBADIOL_DIOEAREA(0)	
16	(10)	X'10'	0	FBADIOL_LEN	"*-FBADIOL"

Table 870. Structure FBADIOL\_DIOE@

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADIOL_DIOE@	
Address of the device I/O entry (mapped by the FBADIOE)					
0	(0)	CHARACTER	4		
4	(4)	ADDRESS	4	FBADIOL_DIOE31@	Address of the device I/O entry (mapped by the FBADIOE) - 31 bit address
4	(4)	X'C2C1C4'	0	FBADIOL_EYEVAL_0T03	"C'FBAD'" This is the first 4-byte segment of an 8-byte constant.
4	(4)	X'D6D340'	0	FBADIOL_EYEVAL_4T07	"C'IOL '" This is the second 4-byte segment of an 8-byte constant.

Table 870. Structure FBADIOL\_DIOE@ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	X'0'	0	FBADIOL_VERSVAL	"0"
4	(4)	X'8'	0	FBADIOL_DIOE@_LEN	"*-FBADIOL_DIOE@"

Table 871. Structure FBADIOE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADIOE	
0	(0)	CHARACTER	48	FBADIOE_HDR(0)	
0	(0)	CHARACTER	8	FBADIOE_EYE	Eyecatcher
8	(8)	BITSTRING	1	FBADIOE_VERS	Version
9	(9)	CHARACTER	1		Reserved
10	(A)	SIGNED	2	FBADIOE_HDRLEN	Length of header
12	(C)	SIGNED	4	FBADIOE_COUNT	Count of extent entries
16	(10)	ADDRESS	8	FBADIOE_DDE@(0)	Address of device descriptor entry for this I/O entry, indicates the target for this I/O entry's operation
16	(10)	CHARACTER	4		
20	(14)	ADDRESS	4	FBADIOE_DDE31@	Address of device descriptor entry for this I/O entry, indicates the target for this I/O entry's operation - 31-bit address
24	(18)	CHARACTER	4		
The status block, if provided, must reside in 31-bit addressable storage.					
28	(1C)	ADDRESS	4	FBADIOE_STATUS@(0)	I/O Status block address
28	(1C)	ADDRESS	4	FBADIOE_STATUS31@	I/O Status block address - 31-bit address
32	(20)	CHARACTER	16		Reserved
32	(20)	X'30'	0	FBADIOE_LEN	"*-FBADIOE"

Table 872. Structure FBADIOE\_EXTENTRY@

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBADIOE_EXTENTRY@	Extent entry address (mapped by the FBAEE)
0	(0)	CHARACTER	4		
4	(4)	ADDRESS	4	FBADIOE_EXTENTRY31@	Extent entry address (mapped by the FBAEE - 31-bit address)
4	(4)	X'C2C1C4'	0	FBADIOE_EYEVAL_0T03	"C'FBAD'" This is the first 4-byte segment of an 8-byte constant.
4	(4)	X'D6C540'	0	FBADIOE_EYEVAL_4T07	"C'IOE '" This is the second 4-byte segment of an 8-byte constant.
4	(4)	X'0'	0	FBADIOE_VERSVAL	"0"
4	(4)	X'8'	0	FBADIOE_EXTENTRY@_LEN	"*-FBADIOE_EXTENTRY@"

Table 873. Structure FBAEE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBAEE	
0	(0)	CHARACTER	72	FBAEE_HDR(0)	
0	(0)	CHARACTER	8	FBAEE_EYE	Eyecatcher

Table 873. Structure FBAEE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	BITSTRING	1	FBAEE_VERS	Version
9	(9)	CHARACTER	1		Reserved
10	(A)	SIGNED	2	FBAEE_HDRLEN	Length of header
12	(C)	SIGNED	2	FBAEE_ENTLEN	Length of an FBAEE_BUFENT
14	(E)	CHARACTER	10		Reserved
24	(18)	CHARACTER	32	FBAEE_DEVICEINFO(0)	Information pertinent to the device being used for this extent
24	(18)	SIGNED	8	FBAEE_BLKSTART(0)	For READ request this is the starting block number on the zFBA device to transfer data from. For WRITE request this is the starting block number on the zFBA device to transfer data to.
24	(18)	CHARACTER	4		
28	(1C)	SIGNED	4	FBAEE_BLKSTART31	For READ request this is the starting block number on the zFBA device to transfer data from. For WRITE request this is the starting block number on the zFBA device to transfer data to - 31-bit format
32	(20)	SIGNED	8	FBAEE_BLKCOUNT(0)	Number of blocks to transfer for this entry
32	(20)	CHARACTER	4		
36	(24)	SIGNED	4	FBAEE_BLKCOUNT31	Number of blocks to transfer for this entry, 31-bit format
40	(28)	CHARACTER	16		Reserved
56	(38)	CHARACTER	9	FBAEE_BUFFERINFO(0)	Information pertinent to storage buffers for this extent
56	(38)	SIGNED	8	FBAEE_BUFcnt(0)	Number of buffer addresses and lengths specified
56	(38)	CHARACTER	4		
60	(3C)	SIGNED	4	FBAEE_BUFcnt31	Number of buffer addresses and lengths, 31-bit format
64	(40)	BITSTRING	1	FBAEE_FLAGS(0)	Flags for this extent
		1... ....		FBAEE_FIXED	"X'80'" Buffers for this extent have been fixed by the caller
65	(41)	CHARACTER	7		Reserved
65	(41)	X'48'	0	FBAEE_LEN	"*-FBAEE"

Table 874. Structure FBAEE\_BUFENT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FBAEE_BUFENT	
0	(0)	ADDRESS	8	FBAEE_BUF@(0)	Address of buffer for I/O
0	(0)	CHARACTER	4		
4	(4)	ADDRESS	4	FBAEE_BUF31@	Address of buffer for I/O, 31-bit format
8	(8)	SIGNED	8	FBAEE_BUFLEN(0)	Length in bytes of the buffer for this I/O
8	(8)	CHARACTER	4		
12	(C)	SIGNED	4	FBAEE_BUFLEN31	Length in bytes of the buffer for this I/O, 31-bit format
12	(C)	X'C2C1C5'	0	FBAEE_EYEVAL_0T03	"C'FBAE'" This is the first 4-byte segment of an 8-byte constant.



Table 874. Structure FBAEE\_BUFENT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C) X'404040'		0	FBAEE_EYEVAL_4T07	"C'E '" This is the second 4-byte segment of an 8-byte constant.
12	(C) X'0'		0	FBAEE_VERSVAL	"0"
Return and Reason Codes for IOSFBA Service Requests					
12	(C) X'0'		0	FBA_RC_SUCCESS	"0"
12	(C) X'0'		0	FBA_RS_SUCCESS	"0" Operation was successful
12	(C) X'1'		0	FBA_RS_NUMDEVSNOTAVAIL	"1" (ALLOCATE) - the requested number of devices (DEVCOUNT) were not available. However, FBADDL_COUNT contains the number of devices actually allocated for this request, which was greater than or equal to the minimum number of devices required (MINDEVCOUNT).
12	(C) X'2'		0	FBA_RS_NOTREUSINGCP	"2" (READ,WRITE) The caller requested that the channel program be reused but failed to pass a valid IOTOKEN so it is not possible to reuse the channel program. ***** ***** * Unsuccessful return and reason codes ***** ***** ** *****
12	(C) X'4'		0	FBA_RC_UNSUCCESSFUL	"4" Operation was unsuccessful
12	(C) X'1'		0	FBA_RS_1ORMOREDEVSNOTOBTAINED	"1" (QUERY) - Information for one or more devices could not be obtained.
12	(C) X'2'		0	FBA_RS_1ORMOREDEVSNOTUNALLOC	"2" (UNALLOCATE) - One or more devices in the DEVLIST could not be unallocated. ***** ***** ***** ** ***** IOSFBA parameter errors ***** ***** ***** ** *****
12	(C) X'8'		0	FBA_RC_CALLERERROR	"8" Error in callers parameters
12	(C) X'1'		0	FBA_RS_PARMVALIDABEND	"1" IOSFBA abended during parameter validation.
12	(C) X'2'		0	FBA_RS_MINCOUNT_GT_DEVCOUNT	"2" (ALLOCATE) - MINDEVCOUNT is greater than DEVCOUNT
12	(C) X'3'		0	FBA_RS_DEVLIST_INVALID	"3" (ALLOCATE,QUERY) - Device list (FBADL) is not properly built built
12	(C) X'4'		0	FBA_RS_NUMBLOCKS_NE_IOBUFFERS	"4" (READ,WRITE) - The number of blocks identified in the READ or WRITE request does not properly equate with the amount of I/O buffers provided.
12	(C) X'5'		0	FBA_RS_INVALIDNUMEXTENTS	"5" (READ,WRITE) - The requested extents to be read or written are not within the acceptable range of extents available on the device.
12	(C) X'6'		0	FBA_RS_INVALIDFUNCTION	"6" Invalid function specified on IOSFBA invocation.
12	(C) X'7'		0	FBA_RS_DEVICEDESCRIPTOR_INVALID	

Table 874. Structure FBAEE\_BUFENT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"7" (UNALLOCATE,ERASE) - The device descriptor list (FBADDL) is not properly built.
12	(C) X'8'		0	FBA_RS_DEVICEDESCRIPTORENTRY_INVALID	
					"8" (UNALLOCATE,READ,WRITE,ERASE) - The device descriptor entry (FBADDE) is not properly built
12	(C) X'9'		0	FBA_RS_DEVICEDESCRIPTORENTRY_UCBNOTALLOC	
					"9" (UNALLOCATE,READ,WRITE,ERASE) - device descriptor entry (FBADDE) UCB is not allocated
12	(C) X'B'		0	FBA_RS_INVALIDBUFFERSIZE	"11" (READ,WRITE) - Buffers specified are not properly sized with the physical block size of the device. Buffer sizes must be multiples of the physical block size of the device.
12	(C) X'C'		0	FBA_RS_INVALIDDEVICEIOLIST	"12" (READ,WRITE) - The device I/O list (FBADIOL) is not properly built.
12	(C) X'D'		0	FBA_RS_INVALIDDEVICEIOENTRY	
					"13" (READ,WRITE) - The device I/O entry (FBADIOE) is not properly built.
12	(C) X'E'		0	FBA_RS_INVALIDEXTENTENTRY	"14" (READ,WRITE) - The extent entry (FBAEE) is not properly built.
12	(C) X'F'		0	FBA_RS_AS_SWAPPABLE	"15" (READ,WRITE) - The caller requested REUSECP=YES but the address space is swappable. ***** ***** Environmental error return and reason codes ***** ***** ** **
12	(C) X'C'		0	FBA_RC_ENVERROR	"12" Environmental error
12	(C) X'1'		0	FBA_RS_NOTENOUGHDEVICESAVAIL	
					"1" (ALLOCATE) - Not enough devices were available to satisfy the requested allocation. Devices must be online, usable and not already allocated in order to be allocated by this service.
12	(C) X'2'		0	FBA_RS_NOTENOUGHDEVICESRESP	
					"2" (ALLOCATE) - Not enough devices provided I/O responses that enabled IOSFBA to validate that they were usable, so IOSFBA was not able to satisfy the requested allocation. Devices must be online, usable, not already allocated and must properly respond to I/O commands that query device information in order to be allocated by this service.
12	(C) X'3'		0	FBA_RS_SERIALIZATION	"3" (ALLOCATE,READ,WRITE) - IOSFBA detected a serialization problem with on of the devices allocated. A SYMREC record was written. Consider varying the device(s) offline and investigate prior device usage before attempting to us the identified device again.
12	(C) X'4'		0	FBA_RS_IOSFBA NOTAVAILABLE	"4" The IOSFBA service is not available.
12	(C) X'5'		0	FBA_RS_NOTINTASKMODE	"5" IOSFBA detected that the caller is not in task mode. IOSFBA must be invoked in task mode

Table 874. Structure FBAEE\_BUFENT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C) X'6'		0	FBA_RS_NOTENABLEDFORIOINTERRUPT	"6" IOSFBA detected that the caller is not enabled for I/O interruption. ***** ***** ***** ** ***** Read and Write unsuccessful return and reason code ***** *****
12	(C) X'10'		0	FBA_RC_READWRITEUNSUCCESSFUL	"16" (READ,WRITE) - the READ or WRITE operation was not successful. Check the status blocks for information on the failed I/Os. The status block is mapped by IOSDIOST. Note that this return code is only valid synchronous READ and WRITE operations. Asynchronous READ and WRITE operations are notified with a post code of x'10'. ***** ***** ** ***** Not authorized return and reason codes ***** *** *****
12	(C) X'14'		0	FBA_RC_NOT_AUTHORIZED	"20" Not authorized to use service
12	(C) X'1'		0	FBA_RS_NOTAUTHKEYSUPSTATE	"1" The invoker must be in PSW key 0-7 and supervisor state. ***** ***** Unexpected error return and reason codes ***** ***** ***** ** *****
12	(C) X'20'		0	FBA_RC_UNEXPECTEDERROR	"32" An unexpected error occurred
12	(C) X'10'		0	FBAEE_BUFENT_LEN	"*-FBAEE_BUFENT"

Table 875. Cross Reference for IOSDFBA

Name	Offset	Hex Tag
FBA_RC_CALLERERROR	C	8
FBA_RC_ENVERROR	C	C
FBA_RC_NOT_AUTHORIZED	C	14
FBA_RC_READWRITEUNSUCCESSFUL	C	10
FBA_RC_SUCCESS	C	0
FBA_RC_UNEXPECTEDERROR	C	20
FBA_RC_UNSUCCESSFUL	C	4
FBA_RS_AS_SWAPPABLE	C	F
FBA_RS_DEVICEDESCRIPTOR_INVALID	C	7
FBA_RS_DEVICEDESCRIPTORENTRY_INVALID	C	8
FBA_RS_DEVICEDESCRIPTORENTRY_UCBNOTALLOC	C	9
FBA_RS_DEVLIST_INVALID	C	3
FBA_RS_INVALIDBUFFERSIZE	C	B
FBA_RS_INVALIDDEVICEIOENTRY	C	D
FBA_RS_INVALIDDEVICEIOLIST	C	C

Table 875. Cross Reference for IOSDFBA (continued)

Name	Offset	Hex Tag
FBA_RS_INVALIDEXTENTENTRY	C	E
FBA_RS_INVALIDFUNCTION	C	6
FBA_RS_INVALIDNUMEXTENTS	C	5
FBA_RS_IOSFBANOTAVAILABLE	C	4
FBA_RS_MINCOUNT_GT_DEVCOUNT	C	2
FBA_RS_NOTAUTHKEYSUPSTATE	C	1
FBA_RS_NOTENABLEDFORIOINTERRUPT	C	6
FBA_RS_NOTENOUGHDEVICESAVAIL	C	1
FBA_RS_NOTENOUGHDEVICESRESP	C	2
FBA_RS_NOTINTASKMODE	C	5
FBA_RS_NOTREUSINGCP	C	2
FBA_RS_NUMBLOCKS_NE_IOBUFFERS	C	4
FBA_RS_NUMDEVSNOTAVAIL	C	1
FBA_RS_PARMVALIDABEND	C	1
FBA_RS_SERIALIZATION	C	3
FBA_RS_SUCCESS	C	0
FBA_RS_10MOREDEVSNOTOBTAINED	C	1
FBA_RS_10MOREDEVSNOTUNALLOC	C	2
FBADDE	0	
FBADDE_ACCESS	9	
FBADDE_ACCESS_ANY	9	10
FBADDE_ACCESS_READ	9	40
FBADDE_ACCESS_SINGLE	9	80
FBADDE_ACCESS_WRITE	9	20
FBADDE_BLKCOUNT	38	
FBADDE_BLKCOUNT31	3C	
FBADDE_BLKSTART	40	
FBADDE_BLKSTART31	44	
FBADDE_COD	58	
FBADDE_DDNAME	60	
FBADDE_DEVICE	10	
FBADDE_DEVN	12	
FBADDE_ERASEFAILED	7E	40
FBADDE_EYE	0	
FBADDE_EYEVAL_0T03	A0	C2C1C4
FBADDE_EYEVAL_4T07	A0	C54040
FBADDE_FLAGS	7E	
FBADDE_IONED	18	
FBADDE_IOSUSE	80	

Table 875. Cross Reference for IOSDFBA (continued)

Name	Offset	Hex Tag
FBADDE_LEN	A0	B0
FBADDE_LENGTH	E	
FBADDE_NOERASEATTEMPTED	7E	20
FBADDE_PHYRECSIZE	7C	
FBADDE_RC	58	
FBADDE_RCOD	59	
FBADDE_RSN	5C	
FBADDE_SS	11	
FBADDE_TOKEN	68	
FBADDE_TTOKEN	6C	
FBADDE_UCBPTR	14	
FBADDE_USER	48	
FBADDE_VERS	8	
FBADDE_VERSVAL	A0	0
FBADDE_1STIODONE	7E	80
FBADDL	0	
FBADDL_COUNT	10	
FBADDL_DDE@	0	
FBADDL_DDE@_LEN	4	8
FBADDL_DDEAREA	18	
FBADDL_DDE31@	4	
FBADDL_EYE	0	
FBADDL_EYEVAL_0T03	4	C2C1C4
FBADDL_EYEVAL_4T07	4	D34040
FBADDL_HDR	0	
FBADDL_HDRLEN	A	
FBADDL_LEN	18	18
FBADDL_LENGTH	C	
FBADDL_SP	9	
FBADDL_VERS	8	
FBADDL_VERSVAL	4	0
FBADIOE	0	
FBADIOE_COUNT	C	
FBADIOE_DDE@	10	
FBADIOE_DDE31@	14	
FBADIOE_EXTENTRY@	0	
FBADIOE_EXTENTRY@_LEN	4	8
FBADIOE_EXTENTRY31@	4	
FBADIOE_EYE	0	

Table 875. Cross Reference for IOSDFBA (continued)

Name	Offset	Hex Tag
FBADIOE_EYEVAL_0T03	4	C2C1C4
FBADIOE_EYEVAL_4T07	4	D6C540
FBADIOE_HDR	0	
FBADIOE_HDRLEN	A	
FBADIOE_LEN	20	30
FBADIOE_STATUS@	1C	
FBADIOE_STATUS31@	1C	
FBADIOE_VERS	8	
FBADIOE_VERSVAL	4	0
FBADIOL	0	
FBADIOL_COUNT	C	
FBADIOL_DIOE@	0	
FBADIOL_DIOE@_LEN	4	8
FBADIOL_DIOEAREA	10	
FBADIOL_DIOE31@	4	
FBADIOL_EYE	0	
FBADIOL_EYEVAL_0T03	4	C2C1C4
FBADIOL_EYEVAL_4T07	4	D6D340
FBADIOL_HDR	0	
FBADIOL_HDRLEN	A	
FBADIOL_LEN	10	10
FBADIOL_VERS	8	
FBADIOL_VERSVAL	4	0
FBADL	0	
FBADL_ALLOCATED	4	40
FBADL_ALREADYALLOC	4	80
FBADL_COUNT	10	
FBADL_DDNAME	8	
FBADL_DEVICE	0	
FBADL_DEVICE_ENTRY	0	
FBADL_DEVICE_ENTRY_LEN	8	10
FBADL_DEVN	2	
FBADL_ENTLEN	C	
FBADL_EYE	0	
FBADL_EYEVAL_0T03	8	C2C1C4
FBADL_EYEVAL_4T07	8	404040
FBADL_FLAGS	4	
FBADL_HDR	0	
FBADL_HDRLEN	A	

Table 875. Cross Reference for IOSDFBA (continued)

Name	Offset	Hex Tag
FBADL_LEN	14	20
FBADL_LENGTH	E	
FBADL_NOTFBA	4	10
FBADL_NOTUSABLE	4	20
FBADL_SS	1	
FBADL_VERS	8	
FBADL_VERSVAL	8	0
FBAEE	0	
FBAEE_BLKCOUNT	20	
FBAEE_BLKCOUNT31	24	
FBAEE_BLKSTART	18	
FBAEE_BLKSTART31	1C	
FBAEE_BUF@	0	
FBAEE_BUFCNT	38	
FBAEE_BUFCNT31	3C	
FBAEE_BUFENT	0	
FBAEE_BUFENT_LEN	C	10
FBAEE_BUFFERINFO	38	
FBAEE_BUFLLEN	8	
FBAEE_BUFLLEN31	C	
FBAEE_BUF31@	4	
FBAEE_DEVICEINFO	18	
FBAEE_ENTLEN	C	
FBAEE_EYE	0	
FBAEE_EYEVAL_0T03	C	C2C1C5
FBAEE_EYEVAL_4T07	C	404040
FBAEE_FIXED	40	80
FBAEE_FLAGS	40	
FBAEE_HDR	0	
FBAEE_HDRLEN	A	
FBAEE_LEN	41	48
FBAEE_VERS	8	
FBAEE_VERSVAL	C	0

## IOSDFEAT information

### IOSDFEAT programming interface information

IOSDFEAT is a programming interface.

## IOSDFEAT heading information

**Common name:** IOS FEATURES INFORMATION MAPPING  
**Macro ID:** IOSDFEAT  
**DSECT name:** FEAT  
**Owning component:** IOS (SC1C3)  
**Eye-catcher ID:** NONE  
**Storage attributes:** Subpool: CALLER-PROVIDED  
Key: CALLER-PROVIDED  
Residency: CALLER-PROVIDED  
  
**Size:** 4 Bytes  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** MAPS IOS FEATURES PARAMETER OR IOS FEATURES TABLE

## IOSDFEAT mapping

Table 876. Structure FEAT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FEAT	
0	(0)	CHARACTER	4	FEAT_IOS(0)	
		1... ....		FEAT_IOS_AUTOSWITCH	"X'80'" AUTO-SWITCHABLE Device
		.1.. ....		FEAT_IOS_WLM PAV	"X'40'" Customer specified that this PAV-base device allows its PAV-alias's to be dynamically tunable by WLM tunable by WLM
0	(0)	CHARACTER	3		Reserved
4	(4)	X'4'	0	FEAT_LEN	"*-FEAT"

## IOSDIECA information

### IOSDIECA programming interface information

IOSDIECA is a programming interface.

### IOSDIECA heading information

**Common name:** IOS Extended Communication Area  
**Macro ID:** IOSDIECA  
**DSECT name:** IECA  
**Owning component:** I/O Supervisor (SC1C3)  
**Eye-catcher ID:** IECA  
Offset: 0  
Length: 4



**Storage attributes:** Main Storage: Yes  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: Nucleus  
Key: N/A  
Data Space: N/A  
Residency: Above 16M Line

**Size:** 64 bytes

**Created by:** IOSVDATA

**Pointed to by:** IOIECAA field of the writable IOCOM

**Serialization:** Compare and Swap (CS) when setting the  
Fsdq queue header

**Function:** Provide an area for communication between IOS and other  
programs.

## IOSDIECA mapping

Table 877. Structure IECA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IECA	
0	(0)	CHARACTER	4	IECA_ID	Eye catcher
4	(4)	ADDRESS	4	IECA_IOSAS_ASCB_ADDR	For cross-memory POST
8	(8)	BITSTRING	16	IECA_IOSVFSD_TTOKEN	For cross-memory POST
24	(18)	BITSTRING	4	IECA_IOSVFSD_ECB(0)	ECB to invoke IOSVFSD
		1... ....		IECA_IOSVFSD_ECB_WAIT	"X'80'"
		.1... ....		IECA_IOSVFSD_ECB_POST	"X'40'"
28	(1C)	ADDRESS	4	IECA_FSDQ_HEADER	Fsdq queue header
32	(20)	ADDRESS	4	IECA_IRDVFSO_EP@	E.P. address of IRDVFSO
36	(24)	BITSTRING	1	IECA_FLAGS(0)	
		1... ....		IECA_IOSVFSD_IS_READY	"X'80'" OK to invoke IOSVFSD
		.1... ....		IECA_RUNDYNROUTHEALTH	"X'40'" The dynamic routing check should be run due to changes in the configuration
37	(25)	BITSTRING	1	IECA_VERS	Version Number
38	(26)	BITSTRING	1	IECA_MAXFABRIC_PRTY	Max Fabric I/O Priority
39	(27)	BITSTRING	1		Reserved
40	(28)	BITSTRING	4	IECA_NUMDYNROUTSWITCHES	
44	(2C)	BITSTRING	20		Reserved
44	(2C)	X'C5C3C1'	0	IECA_NAME	"C'IECA'" Characters for acronym
44	(2C)	X'40'	0	IECA_LEN	"*-IECA"
44	(2C)	X'0'	0	IECA_CURRVERS	"0"

Table 878. Cross Reference for IOSDIECA

Name	Offset	Hex Tag
IECA	0	
IECA_CURRVERS	2C	0
IECA_FLAGS	24	

Table 878. Cross Reference for IOSDIECA (continued)

Name	Offset	Hex Tag
IECA_FSDQ_HEADER	1C	
IECA_ID	0	C9C5C3C1
IECA_IOSAS_ASCB_ADDR	4	
IECA_IOSVFSD_ECB	18	
IECA_IOSVFSD_ECB_POST	18	40
IECA_IOSVFSD_ECB_WAIT	18	80
IECA_IOSVFSD_IS_READY	24	80
IECA_IOSVFSD_TTOKEN	8	0
IECA_IRDVFSO_EP@	20	
IECA_LEN	2C	40
IECA_MAXFABRIC_PRTY	26	
IECA_NAME	2C	C5C3C1
IECA_NUMDYNROUTSWITCHES	28	0
IECA_RUNDYNROUTHEALTH	24	40
IECA_VERS	25	0

## IOSDIODI information

### IOSDIODI programming interface information

IOSDIODI is a programming interface.

### IOSDIODI heading information

<b>Common name:</b>	IODF Information area
<b>Macro ID:</b>	IOSDIODI
<b>DSECT name:</b>	IOSDIODI
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IODI Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: User Key: User Data Space: No Residency: 31 Bit
<b>Size:</b>	128 bytes
<b>Created by:</b>	Issuer of IOCINFO IODFINFO service
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	IOSDIODI maps IODF information returned by the IOCINFO IODFINFO service.

## IOSDIODI mapping

Table 879. Structure IODI

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IODI	IODF Information area
0	(0)	CHARACTER	4	IODI_ID	Eye catcher
4	(4)	BITSTRING	1	IODI_VERSION	IODI version number
5	(5)	BITSTRING	1	IODI_FLAGS(0)	IODI flags
	1... ....			IODI_IODFUCBINVLD	"X'80'" Indicates IODI_IODFUCB is not valid. There is no UCB for the IODF device.
6	(6)	CHARACTER	2		Available
8	(8)	CHARACTER	44	IODI_IODFDSNAME	IODF data set name
52	(34)	ADDRESS	4	IODI_IODFUCB	UCB address of IODF volume
56	(38)	CHARACTER	6	IODI_IODFVOLSER	Volume Serial of IODF volume
62	(3E)	SIGNED	2	IODI_IODFODEV	Original IODF device number
64	(40)	BITSTRING	1	IODI_IODFOSS	Original IODF device subchannel set id
65	(41)	CHARACTER	63		Available
IODI Eye-Catcher					
65	(41)	X'D6C4C9'	0	IODISTRING	"C'IODI'" IODI Eye-Catcher
IODI Version					
65	(41)	X'1'	0	IODIVERSIONNUMBER	"1" IODI Version Number
65	(41)	X'80'	0	IODI_LEN	"*-IODI"

Table 880. Cross Reference for IOSDIODI

Name	Offset	Hex	Tag
IODI	0		
IODI_FLAGS	5		
IODI_ID	0		
IODI_IODFDSNAME	8		
IODI_IODFODEV	3E		
IODI_IODFOSS	40		
IODI_IODFUCB	34		
IODI_IODFUCBINVLD	5		80
IODI_IODFVOLSER	38		
IODI_LEN	41		80
IODI_VERSION	4		
IODISTRING	41		D6C4C9
IODIVERSIONNUMBER	41		1

## IOSDIOFC information

### IOSDIOFC programming interface information

IOSDIOFC is a programming interface.

### IOSDIOFC heading information

**Common name:** I/O Facilities Information Area  
**Macro ID:** IOSDIOFC  
**DSECT name:** IOFC  
**Owning component:** I/O Supervisor (SC1C3)  
**Eye-catcher ID:** None  
**Storage attributes:** Subpool: Any  
Key: Any  
Residency: Any  
  
**Size:** 256 bytes  
IOFC -- X'0100' bytes  
  
**Created by:** Issuer of IOCINFO IOFACILTIES  
**Pointed to by:** IOCINFO parameter list  
**Serialization:** None  
**Function:** IOSDIOFC maps the information which is returned by the IOCINFO IOFACILTIES function, which shows which I/O facilities are supported by the hardware and software.  
Notes: None

### IOSDIOFC mapping

Table 881. Structure IOFC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IOFC	I/O Facilities Information Area
0	(0)	BITSTRING	1	IOFC_VERSION	Version number
1	(1)	BITSTRING	1	IOFC_FLAG1	Flag 1
Bit definitions:					
		1... ....		IOFC_MIDAW_HW	"X'80'" The MIDAW facility is supported by the hardware
		.1.. ....		IOFC_MIDAW_SW	"X'40'" The MIDAW facility is supported and enabled by the software. This bit will only be on if IOFC_MIDAW_HW is on and the MIDAW facility has not been disabled via the IECIOSxx parm lib member or the SETIOS command.
		..1. ....		IOFC_FCX_HW	"X'20'" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported by the hardware

Table 881. Structure IOFC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		IOFC_FCX_SW	"X'10'" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported and enabled by the software. This bit will only be on if IOFC_FCX_HW is on and the facility has not been disabled via the IECIOSxx parmlib member or the SETIOS command.
		.... 1...		IOFC_ZHYPERLINK_HW	"X'08'" The zHyperlink facility is supported by the hardware
		.... .1..		IOFC_ZHYPERLINK_SW	"X'04'" The zHyperlink facility is supported by the software. This bit is set independently from IOFC_ZHYPERLINK_HW.
		.... ..1.		IOFC_ZHYPERLINK_SW_READENABLED	"X'02'" zHyperlink reads are enabled by the software. This bit will only be on when both IOFC_zHyperlink_HW and IOFC_ZHyperlink_SW are on, and zHyperlink reads are enabled via the IECIOSxx parmlib member or the SETIOS command.
		.... ...1		IOFC_ZHYPERLINK_SW_WRITEENABLED	"X'01'" zHyperlink writes are enabled by the software. This bit will only be on when both IOFC_zHyperlink_HW and IOFC_ZHyperlink_SW are on, and zHyperlink writes are enabled via the IECIOSxx parmlib member or the SETIOS command.
2	(2)	BITSTRING	1	IOFC_FLAG2	Flag 2
Bit definitions:					
		1... ....		IOFC_CRD_SW	"X'80'" Consistent read from secondary is supported by the software
		.1.. ....		IOFC_CRD_SW_ENABLED	"X'40'" Consistent read from secondary is enabled by the software. That is, the function is enabled via the IECIOSxx parmlib member or the SETIOS command.
		..1. ....		IOFC_EQDIO_HW	"X'20'" The enhanced QDIO facility is supported by the hardware
3	(3)	CHARACTER	253		Reserved
256	(100)	CHARACTER	1	IOFC_END(0)	End of IOFC
IOFC Version					
256	(100)	X'1'	0	IOFC_VERSION_CURRENT	"1" Current IOFC version number
256	(100)	X'100'	0	IOFC_LEN	"*-IOFC"

Table 882. Cross Reference for IOSDIOFC

Name	Offset	Hex Tag
IOFC	0	
IOFC_CRD_SW	2	80
IOFC_CRD_SW_ENABLED	2	40
IOFC_END	100	
IOFC_EQDIO_HW	2	20

Table 882. Cross Reference for IOSDIOFC (continued)

Name	Offset	Hex Tag
IOFC_FCX_HW	1	20
IOFC_FCX_SW	1	10
IOFC_FLAG1	1	
IOFC_FLAG2	2	
IOFC_LEN	100	100
IOFC_MIDAW_HW	1	80
IOFC_MIDAW_SW	1	40
IOFC_VERSION	0	
IOFC_VERSION_CURRENT	100	1
IOFC_ZHYPERLINK_HW	1	8
IOFC_ZHYPERLINK_SW	1	4
IOFC_ZHYPERLINK_SW_READENABLED	1	2
IOFC_ZHYPERLINK_SW_WRITEENABLED	1	1

## IOSDIOST information

### IOSDIOST programming interface information

IOSDIOST is a programming interface.

### IOSDIOST heading information

<b>Common name:</b>	I/O Status Information
<b>Macro ID:</b>	IOSDIOST
<b>DSECT name:</b>	IOST
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IOST Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: Caller provided
<b>Size:</b>	See assembler listing
<b>Created by:</b>	Caller of IOSFBA service If not supplied by caller of IOSFBA service, then created by IOSVFBAS
<b>Pointed to by:</b>	FBADIOE_STATUS@ in FBADIOE (IOSDFBA) Note: This block must reside in 31-bit storage.
<b>Serialization:</b>	None
<b>Function:</b>	Maps the status returned in the IOSB for the I/O request.

# IOSDIOST mapping

Table 883. Structure IOST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IOST	
0	(0)	CHARACTER	8	IOST_HDR(0)	
0	(0)	CHARACTER	4	IOST_ID	Control block id ("IOST")
4	(4)	BITSTRING	1	IOST_VERSION	Version
5	(5)	CHARACTER	3		Reserved
8	(8)	CHARACTER	96	IOST_STATUS(0)	
8	(8)	BITSTRING	1	IOST_COD	I/O completion code
9	(9)	BITSTRING	1	IOST_RCOD	Reason code detailing completion code value
10	(A)	BITSTRING	1	IOST_FLAGS(0)	Reserved
		1... ....		IOST_SENSEVALID	"X'80'" Sense data is valid
11	(B)	CHARACTER	5		Reserved
16	(10)	CHARACTER	8	IOST_FCSW(0)	8 byte subchannel CSW. Copied from IOSFCSW.
16	(10)	ADDRESS	4	IOST_CCWAD(0)	Ending CCW address
16	(10)	ADDRESS	4	IOST_TCWAD	Ending TCW address for zHPF
20	(14)	BITSTRING	1	IOST_DSTAT(0)	Device status
		1... ....		IOST_DSATN	"X'80'" Attention
		.1.. ....		IOST_DSSM	"X'40'" Status Modifier
		..1. ....		IOST_DSCUE	"X'20'" Control Unit End
		...1 ....		IOST_DSBSY	"X'10'" Busy
		.... 1...		IOST_DSCE	"X'08'" Channel End
		.... .1..		IOST_DSDE	"X'04'" Device End
		.... ..1.		IOST_DSUC	"X'02'" Unit Check
		.... ...1		IOST_DSUEX	"X'01'" Unit Exception
21	(15)	BITSTRING	1	IOST_SSTAT(0)	Subchannel Status
		1... ....		IOST_SSPCI	"X'80'" Program-Controlled Interrupt
		.1.. ....		IOST_SSIL	"X'40'" Incorrect Length
		..1. ....		IOST_SSPGC	"X'20'" Program Check
		...1 ....		IOST_SSPTC	"X'10'" Protection Check
		.... 1...		IOST_SSCDC	"X'08'" Channel-Data Check
		.... .1..		IOST_SSCCC	"X'04'" Channel-Control Check
		.... ..1.		IOST_SSICC	"X'02'" Interface-Control Check
		.... ...1		IOST_SSCC	"X'01'" Chaining Check
		.... ...1		IOST_SSCRF	"X'01'" Channel subsystem retry failed
22	(16)	ADDRESS	2	IOST_CSWRC(0)	
22	(16)	BITSTRING	1	IOST_FCXST	FCX status
23	(17)	BITSTRING	1	IOST_SESTAT(0)	Subchannel extended status
		1... ....		IOST_INTGFAILED	"X'80'" Interrogate failed
		.111 1111		IOST_SESQ	"X'7F'" Subchannel extended status qualifier - see macro IHASESQ
24	(18)	CHARACTER	16		Reserved
40	(28)	CHARACTER	32	IOST_SENSE	Sense data if the device status contains unit check
72	(48)	CHARACTER	32	IOST_EMW(0)	Extended measurement word

Table 883. Structure IOST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
72	(48)	SIGNED	4	IOST_CONNT	Device connect time
76	(4C)	SIGNED	4	IOST_PENDT	Function pending time
80	(50)	SIGNED	4	IOST_DISCT	Device disconnect time
84	(54)	SIGNED	4	IOST_CUQTA	Control unit queueing time
88	(58)	SIGNED	4	IOST_DAO	Device active only time
92	(5C)	SIGNED	4	IOST_DEVBT	Device busy time
96	(60)	SIGNED	4	IOST_ICMR	Initial command response time
100	(64)	SIGNED	4		Reserved
IOST Constants					
100	(64)	X'D6E2E3'	0	IOST_EYECATCHER	"C'IOST'"
100	(64)	X'1'	0	IOST_CURRENT_VERSION	"1"
100	(64)	X'68'	0	IOST_LEN	"*-IOST"

Table 884. Cross Reference for IOSDIOST

Name	Offset	Hex	Tag
IOST	0		
IOST_CCWAD	10		
IOST_COD	8		
IOST_CONNT	48		
IOST_CSWRC	16		
IOST_CUQTA	54		
IOST_CURRENT_VERSION	64		1
IOST_DAO	58		
IOST_DEVBT	5C		
IOST_DISCT	50		
IOST_DSATN	14		80
IOST_DSBSY	14		10
IOST_DSCE	14		8
IOST_DSCUE	14		20
IOST_DSDE	14		4
IOST_DSSM	14		40
IOST_DSTAT	14		
IOST_DSUC	14		2
IOST_DSUEX	14		1
IOST_EMW	48		
IOST_EYECATCHER	64	D6E2E3	
IOST_FCSW	10		
IOST_FCXST	16		
IOST_FLAGS	A		
IOST_HDR	0		



Table 884. Cross Reference for IOSDIOST (continued)

Name	Offset	Hex Tag
IOST_ICMR	60	
IOST_ID	0	
IOST_INTGFAILED	17	80
IOST_LEN	64	68
IOST_PENDT	4C	
IOST_RCOD	9	
IOST_SENSE	28	
IOST_SENSEVALID	A	80
IOST_SESQ	17	7F
IOST_SESTAT	17	
IOST_SSCC	15	1
IOST_SSCCC	15	4
IOST_SSCDC	15	8
IOST_SSCRF	15	1
IOST_SSICC	15	2
IOST_SSIL	15	40
IOST_SSPCI	15	80
IOST_SSPGC	15	20
IOST_SSPTC	15	10
IOST_SSTAT	15	
IOST_STATUS	8	
IOST_TCWAD	10	
IOST_VERSION	4	

## IOSDMAP information

### IOSDMAP programming interface information

IOSDMAP is a programming interface.

### IOSDMAP heading information

**Common name:** MAP - IOS Map Service Parameter List  
**Macro ID:**  
**DSECT name:** IOSDMAP  
**Owning component:** I/O Supervisor (SC1C3)  
**Eye-catcher ID:** None

**Storage attributes:** Main Storage: N/A  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: Caller provided  
Key: Caller provided  
Residency: Caller provided

**Size:** 40 Bytes

**Created by:** Issuer of UCBINFO PATHMAP

**Pointed to by:** N/A

**Serialization:** N/A

**Function:** The IOSDMAP macro maps the device path information that is returned via a call to the PATHMAP function of the UCBINFO macro.

## IOSDMAP mapping

Table 885. Structure IOSDMAP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IOSDMAP	
0	(0)	ADDRESS	4	MAPUCB	UCB Common Segment address (Required)
4	(4)	BITSTRING	1	MAPFLGS	UCB flag information
		1... ....		MAPVALPH	"X'80'" If on, path validation has not been done. Reflects setting of UCBVALPH.
EQU X'7F' Reserved					
5	(5)	BITSTRING	3	MAPRESV	Reserved
8	(8)	CHARACTER	32	MAPTABLE(0)	32 byte area where map output stored (Required).
8	(8)	BITSTRING	1	MAPCHPNO	Number of valid installed channel paths to the specified device.
9	(9)	BITSTRING	1	MAPLPUM	Last Path Used Mask
10	(A)	BITSTRING	6		Reserved
16	(10)	BITSTRING	3	MAPCHPDT(8)	Channel Path data - 8 CHPIDS

Table 886. Structure MAPDATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MAPDATA	Maps MAPCHPDT Fields-----
0	(0)	BITSTRING	1	MAPCHPID	Channel Path ID number
1	(1)	BITSTRING	1	MAPPTHMK	PATHMASK - This mask corresponds to the bit settings in the PIM for this Channel path.
2	(2)	BITSTRING	1	MAPBIT	
EQU X'80' Reserved					
		.1.. ....		MAPDCMVS	"X'40'" Dynamic Chpid Management mask. If on, indicates that the path is offline due to a Vary Switch or CONFIG Member(xx) request.

Table 886. Structure MAPDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		..1. ....		MAPCMM	"X'20'" Configuration management mask. If on, indicates that path is offline due to ESCM.
		...1 ....		MAPOPM	"X'10'" Operator path mask. If on, indicates that path is offline due to the operator.
		.... 1...		MAPCPM	"X'08'" C.U.I.R. path mask. If on, indicates that path is offline due to C.U.I.R.
		.... .1..		MAPLPM	"X'04'" Logically available mask (LPM) 1 = Available 0 = Not available
		.... ..1.		MAPPAM	"X'02'" Physically available mask 1 = Available 0 = Not available
		.... ...1		MAPVARY	"X'01'" If ON, Vary offline in progress

Table 887. Cross Reference for IOSDMAP

Name	Offset	Hex	Tag
IOSDMAP	0		
MAPBIT	2		
MAPCHPDT	10		
MAPCHPID	0		
MAPCHPNO	8		
MAPCMM	2		20
MAPCPM	2		8
MAPDATA	0		
MAPDCMVSW	2		40
MAPFLGS	4		
MAPLPM	2		4
MAPLPUM	9		
MAPOPM	2		10
MAPPAM	2		2
MAPPTHMK	1		
MAPRESV	5		
MAPTABLE	8		
MAPUCB	0		
MAPVALPH	4		80
MAPVARY	2		1

## IOSDNPPL information

### IOSDNPPL programming interface information

IOSDNPPL is a programming interface.

## IOSDNPPL heading information

**Common name:** New Purge Parameter List  
**Macro ID:** IOSDNPPL  
**DSECT name:** NPPL  
**Owning component:** IOS (SC1C3)  
**Eye-catcher ID:** NPPL  
     Offset: 28  
     Length: 4  
  
**Storage attributes:** Subpool: Caller  
     Key: Key of Caller  
     Residency: Above or Below  
  
**Size:** 32 bytes  
**Created by:** Issuers of the PURGE macro  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** This DSECT describes the control block containing all the information necessary to do I/O purging to support 31-bit arguments.

## IOSDNPPL mapping

Table 888. Structure NPPL

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	NPPL	
0	(0)	BITSTRING	1	NPPLOPT1	Option byte one
		1... ..		NPPLDS	"X'80'" If DSID purge requested, purge a single DSID. If zero, purge a list of DSIDs. In either case, the caller must be in supervisor state
		.1.. ....		NPPLPOST	"X'40'" ECBs associated with the I/O requests purged should be posted with X'48'
		..1. ....		NPPLHIO	"X'20'" Halt the I/O requests
		...1 ....		NPPLREL	"X'10'" Purge only the I/O requests marked related and associated with the argument (EXCP only)
		.... 1...		NPPLNPPL	"X'08'" Indicator that new PPL is being used
		.... .1..		NPPLRB	"X'04'" Do not purge the RB chain for asynchronously scheduled routines
		.... ..1.		NPPLTASK	"X'02'" Purge a single TCB
1	(1)	BITSTRING	1	NPPLOPT2	Option byte 2
		1... ..		NPPLCAN	"X'80'" Cancel command request
		.1.. ....		NPPLSTAUT	"X'40'" Indicates if an authorized purge caller is executing on behalf of a program that may be running authorized ('1'b) or unauthorized ('0'b)

Table 888. Structure NPPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		NPPLMEM	"X'20'" ASID purge specified. This Option may be specified only by a requestor that is in supervisor state.
		...1 ....		NPPLVC	"X'10'" Perform DSID validity check (Supervisor state only) 0 - Bypass validity check 1 - Validity check
		.... 1...		NPPLOTCB	"X'08'" Purge all requests so that when restored they can be associated with the TCB that originated them.
		.... .1..		NPPLTSKM	"X'04'" Purge called by task termination
		.... ..1.		NPPLBSS	"X'02'" Bypass status start
		.... ...1		NPPLUCB	"X'01'" Purge DSID by UCB only when this bit is on only requests for specified UCB will be purged.(EXCP only)
2	(2)	BITSTRING	1	NPPLOPT3	Option byte three
		1... ....		NPPLIOPT	"X'80'" I/O prevention requested
		.1.. ....		NPPLCLR	"X'40'" Bypass issuing HALT that needs to select the device (which could be busied off).
		..1. ....		NPPLNOSS	"X'20'" No Status Stop - Allow SRBs/TCBs during CSCH Note: Do not turn on for a memterm purge.
3	(3)	BITSTRING	1	NPPLOPT4	Option byte four
4	(4)	BITSTRING	1	NPPLCC	Purge completion code '7F' successful completion '40' unsuccessful completion
5	(5)	BITSTRING	1	NPPLDVID	Driver ID -- required for DSID purge requests default value of x'00' implies EXCP is the owner
6	(6)	SIGNED	2	NPPLASID(0)	ASID of address space to which I/O requests are associated(required for purge by ASID)
6	(6)	SIGNED	2	NPPLOFST	Offset of UCB within DEB for purge by UCB only.
8	(8)	SIGNED	4	NPPLIOPD(0)	4 byte I/O prevention identifier
8	(8)	SIGNED	4	NPPLDSID	DSID argument. If validity checking done, must point to a DEB
12	(C)	SIGNED	4	NPPLTCB	Address of TCB to be used to find the I/O requests if not supplied, the current TCB address will be used
16	(10)	SIGNED	4	NPPLPIRL	Address of the anchor from which the PIRL will be chained
20	(14)	SIGNED	4	NPPLSRB	Optional SRB address provided by branch entry callers if they require asynchronous notification of halt subchannel completion
24	(18)	SIGNED	4	NPPLRSVD	Reserved
28	(1C)	CHARACTER	4	NPPLID	Four byte EBCDIC identifier

Table 889. Cross Reference for IOSDNPPL

Name	Offset	Hex Tag
NPPL	0	
NPPLASID	6	
NPPLBSS	1	2

Table 889. Cross Reference for IOSDNPPL (continued)

Name	Offset	Hex Tag
NPPLCAN	1	80
NPPLCC	4	
NPPLCLR	2	40
NPPLDS	0	80
NPPLDSID	8	
NPPLDVID	5	
NPPLHIO	0	20
NPPLID	1C	
NPPLIOPD	8	
NPPLIOPT	2	80
NPPLMEM	1	20
NPPLNOSS	2	20
NPPLNPPL	0	8
NPPLOFST	6	
NPPLOPT1	0	
NPPLOPT2	1	
NPPLOPT3	2	
NPPLOPT4	3	
NPPLOTCB	1	8
NPPLPIRL	10	
NPPLPOST	0	40
NPPLRB	0	4
NPPLREL	0	10
NPPLRSVD	18	
NPPLSRB	14	
NPPLSTAUT	1	40
NPPLTASK	0	2
NPPLTCB	C	
NPPLTSKM	1	4
NPPLUCB	1	1
NPPLVC	1	10

## IOSDPATH information

### IOSDPATH programming interface information

IOSDPATH is a programming interface.

### IOSDPATH heading information

**Common name:** Path information mapping

**Macro ID:** IOSDPATH  
**DSECT name:** PATH  
**Owning component:** IOS (SC1C3)  
**Eye-catcher ID:** none  
**Storage attributes:** Subpool: caller-provided  
Key: caller-provided  
Residency: caller-provided  
  
**Size:** PATH -- X'0100' bytes  
**Created by:** issuer of UCBINFO PATHINFO  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the input to and output from UCBINFO PATHINFO

## IOSDPATH mapping

Table 890. Structure PATH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PATH	Path information mapping
0	(0)	SIGNED	4	PATH#CHPIDS	Number of valid installed Channel Paths to the specific device.
4	(4)	CHARACTER	1	PATHFLAGS	Flags mapped like MapFlgs in IOSDMAP
Bit definitions:					
		1... ....		PATHVALPH	"X'80'" If on, path validation has not been done. Reflects setting of UCBVALPH.
5	(5)	CHARACTER	1	PATHFLAGS1	More Flags
Bit definitions:					
		1... ....		PATHINTTYPENOTAVAILABLE	"X'80'" If on, no interface type information was available.
		.1.. ....		PATHUVALID	"X'40'" If on, the PathUa field contains the device unit address
		..1. ....		PATHFC	"X'20'" If on, the device is connected to at least one FICON channel (i.e., channel type is FICON POINT TO POINT, FICON SWITCHED, or FICON INCOMPLETE)
		...1 ....		PATHATTRIBUTESVALID	"X'10'" If on, path selection attribute information is supported (PathAttribute is valid).
6	(6)	BITSTRING	1	PATHLPUM	Last Path used mask (LPUM)
7	(7)	BITSTRING	2	PATHUA	Device unit address
9	(9)	CHARACTER	23		Reserved
32	(20)	CHARACTER	28	PATHCHPIDARRAY	Array of up to 8 entries of path information. The last entry filled in is the entry corresponding to Path#Chpids. Note that Path#Chpids could be 0, in which case no entries are filled in.
32	(20)	SIGNED	2	PATHCHPID	Channel Path ID number

Table 890. Structure PATH (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
34	(22)	BITSTRING	1	PATHMASK	This mask corresponds to the bit setting in the PIM for this channel path.
35	(23)	BITSTRING	1	PATHBITS	Mapped like MapBit in IOSDMAP
Bit definitions:					
		.1.. ....		PATHDCMVS	"X'40'" Dynamic Chpid Management mask. If on, indicates that path is offline due to a Vary Switch or Config member(xx) request.
		..1. ....		PATHCMM	"X'20'" Configuration management mask. If on, indicates that path is offline due to ESCM.
		...1 ....		PATHOPM	"X'10'" Operator path mask. If on, indicates that path is offline due to the operator.
		.... 1...		PATHCPM	"X'08'" Control unit recovery process path mask. If on, indicates that the path is offline due to control unit recovery process
		.... .1..		PATHLPM	"X'04'" Logically Available Mask: 1 = Available, 0 = Not available
		.... ..1.		PATHPAM	"X'02'" Physically Available Mask: 1 = Available, 0 = Not available
		.... ...1		PATHVARY	"X'01'" If On, vary OFFLINE in progress
36	(24)	BITSTRING	1	PATHINTTYPE	Interface type entry. Constants defining the possible values are below and begin with PathIntType_
37	(25)	BITSTRING	1	PATHATTRIBUTE	Path attribute. Constants are defined below
38	(26)	CHARACTER	22		Reserved
256	(100)	X'0'	0	PATHINTTYPE_UNKNOWN	"0" Channel path description not known
256	(100)	X'1'	0	PATHINTTYPE_BLOCK_MTPX	"1" Parallel block multiplexer channel path
256	(100)	X'2'	0	PATHINTTYPE_BYTE_MTPX	"2" Parallel byte multiplexer channel path
256	(100)	X'3'	0	PATHINTTYPE_ESCON_PT_TO_PT	"3" ESCON point to point channel path
256	(100)	X'4'	0	PATHINTTYPE_ESCON_UNKNOWN	"4" ESCON channel path
256	(100)	X'5'	0	PATHINTTYPE_ESCON_SWITCH	"5" ESCON switch point to point channel path
256	(100)	X'6'	0	PATHINTTYPE_ESCON_CONVERT	"6" Fiber extended channel path
256	(100)	X'7'	0	PATHINTTYPE_ESCON_NATIVE	"7" Native Interface
256	(100)	X'8'	0	PATHINTTYPE_CTC_PT_TO_PT	"8" CTC adapter point to point
256	(100)	X'9'	0	PATHINTTYPE_CTC_SW_PT_TO_PT	"9" CTC adapter switched point to point
256	(100)	X'A'	0	PATHINTTYPE_CTC_UNKNOWN	"10" CTC adapter
256	(100)	X'F'	0	PATHINTTYPE_ESCON_BYTE_CONVERT	"15" ESCON Byte Pacer channel path
256	(100)	X'10'	0	PATHINTTYPE_OSA_EXPRESS	"16" OSA Express channel path
256	(100)	X'11'	0	PATHINTTYPE_OSA_DIRECT_EXPRESS	"17" OSA Direct Express channel path
256	(100)	X'12'	0	PATHINTTYPE_OSA	"18" Open Systems Adapter



Table 890. Structure PATH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
256	(100)	X'13'	0	PATHINTTYPE_ISD	"19" Internal System Device
256	(100)	X'14'	0	PATHINTTYPE_OSC	"20" OSA Console
256	(100)	X'15'	0	PATHINTTYPE_OSN	"21" OSA NCP (OSN)
256	(100)	X'16'	0	PATHINTTYPE_ICB_SENDER	"22" Integrated Cluster Bus Sender
256	(100)	X'17'	0	PATHINTTYPE_ICB_RECEIVER	"23" Integrated Cluster Bus Receiver
256	(100)	X'18'	0	PATHINTTYPE_IISC_SENDER	"24" Internal ISC Sender
256	(100)	X'19'	0	PATHINTTYPE_IISC_RECEIVER	"25" Internal ISC Receiver
256	(100)	X'1A'	0	PATHINTTYPE_FICON_NATIVE	"26" Native FICON
256	(100)	X'1B'	0	PATHINTTYPE_FICON_SWITCHED	"27" FICON switched
256	(100)	X'1C'	0	PATHINTTYPE_FICON_TO_BRIDGE	"28" FICON Bridge
256	(100)	X'1D'	0	PATHINTTYPE_FICON_INCOMPLETE	"29" FICON (Incomplete Description)
256	(100)	X'1E'	0	PATHINTTYPE_DSD	"30" Direct System Device (DSD)
256	(100)	X'1F'	0	PATHINTTYPE_EIO	"31" Emulated I/O (EIO)
256	(100)	X'21'	0	PATHINTTYPE_CBP	"33" Integrated Cluster Bus Peer
256	(100)	X'22'	0	PATHINTTYPE_CFP	"34" Coupling Facility Peer
256	(100)	X'23'	0	PATHINTTYPE_ICP	"35" Internal Coupling Peer
256	(100)	X'24'	0	PATHINTTYPE_IQD	"36" Internal Queued Direct Communications
256	(100)	X'25'	0	PATHINTTYPE_FCP	"37" Fibre Channel Protocol CHPID
256	(100)	X'26'	0	PATHINTTYPE_CIB	"38" Coupling over Infiniband
256	(100)	X'30'	0	PATHINTTYPE_OSA_ZBX_DATA	"48" OSA zBX Data
256	(100)	X'31'	0	PATHINTTYPE_OSA_ZBX_MANAGEMENT	"49" OSA zBX Management
256	(100)	X'33'	0	PATHINTTYPE_COUPLING_OVER_PCIE	"51" Coupling over PCIE
256	(100)	X'34'	0	PATHINTTYPE_COUPLING_OVER_ROCE	"52" Coupling over RoCE 10G
256	(100)	X'35'	0	PATHINTTYPE_OSH	"53" OSA Hybrid
256	(100)	X'37'	0	PATHINTTYPE_COUPLING_OVER_ROCE2	"55" Coupling over RoCE 25G
Values for PathAttribute					
256	(100)	X'0'	0	PATHATTRIBUTE_NOTSPECIFIED	"0" Path attributes are not specified for this path
256	(100)	X'1'	0	PATHATTRIBUTE_PREFERREDPATH	"1" This path is a preferred path
256	(100)	X'2'	0	PATHATTRIBUTE_NONPREFERREDPATH	"2" This path is a non-preferred path
					End of PathAttribute values
256	(100)	X'100'	0	PATH_LEN	"*-PATH"

Table 891. Cross Reference for IOSDPATH

Name	Offset	Hex Tag
PATH	0	

Table 891. Cross Reference for IOSDPATH (continued)

Name	Offset	Hex Tag
PATH_LEN	100	100
PATH#CHPIDS	0	
PATHATTRIBUTE	25	
PATHATTRIBUTE_NONPREFERREDPATH	100	2
PATHATTRIBUTE_NOTSPECIFIED	100	0
PATHATTRIBUTE_PREFERREDPATH	100	1
PATHATTRIBUTESVALID	5	10
PATHBITS	23	
PATHCHPID	20	
PATHCHPIDARRAY	20	
PATHCMM	23	20
PATHCPM	23	8
PATHDCMVS	23	40
PATHFC	5	20
PATHFLAGS	4	
PATHFLAGS1	5	
PATHINTTYPE	24	
PATHINTTYPE_BLOCK_MTPX	100	1
PATHINTTYPE_BYTE_MTPX	100	2
PATHINTTYPE_CBP	100	21
PATHINTTYPE_CFP	100	22
PATHINTTYPE_CIB	100	26
PATHINTTYPE_COUPLING_OVER_PCIE	100	33
PATHINTTYPE_COUPLING_OVER_ROCE	100	34
PATHINTTYPE_COUPLING_OVER_ROCE2	100	37
PATHINTTYPE_CTC_PT_TO_PT	100	8
PATHINTTYPE_CTC_SW_PT_TO_PT	100	9
PATHINTTYPE_CTC_UNKNOWN	100	A
PATHINTTYPE_DSD	100	1E
PATHINTTYPE_EIO	100	1F
PATHINTTYPE_ESCON_BYTE_CONVERT	100	F
PATHINTTYPE_ESCON_CONVERT	100	6
PATHINTTYPE_ESCON_NATIVE	100	7
PATHINTTYPE_ESCON_PT_TO_PT	100	3
PATHINTTYPE_ESCON_SWITCH	100	5
PATHINTTYPE_ESCON_UNKNOWN	100	4
PATHINTTYPE_FCP	100	25
PATHINTTYPE_FICON_INCOMPLETE	100	1D
PATHINTTYPE_FICON_NATIVE	100	1A

Table 891. Cross Reference for IOSDPATH (continued)

Name	Offset	Hex Tag
PATHINTTYPE_FICON_SWITCHED	100	1B
PATHINTTYPE_FICON_TO_BRIDGE	100	1C
PATHINTTYPE_ICB_RECEIVER	100	17
PATHINTTYPE_ICB_SENDER	100	16
PATHINTTYPE_ICP	100	23
PATHINTTYPE_IISC_RECEIVER	100	19
PATHINTTYPE_IISC_SENDER	100	18
PATHINTTYPE_IQD	100	24
PATHINTTYPE_ISD	100	13
PATHINTTYPE_OSA	100	12
PATHINTTYPE_OSA_DIRECT_EXPRESS	100	11
PATHINTTYPE_OSA_EXPRESS	100	10
PATHINTTYPE_OSA_ZBX_DATA	100	30
PATHINTTYPE_OSA_ZBX_MANAGEMENT	100	31
PATHINTTYPE_OSC	100	14
PATHINTTYPE_OSH	100	35
PATHINTTYPE_OSN	100	15
PATHINTTYPE_UNKNOWN	100	0
PATHINTTYPENOTAVAILABLE	5	80
PATHLPM	23	4
PATHLPUM	6	
PATHMASK	22	
PATHOPM	23	10
PATHPAM	23	2
PATHUA	7	
PATHUAVALID	5	40
PATHVALPH	4	80
PATHVARY	23	1

## IOSDPAVA information

### IOSDPAVA programming interface information

IOSDPAVA is a programming interface.

### IOSDPAVA heading information

**Common name:** Parallel Access Volume Array (PAVA) mapping  
**Macro ID:** IOSDPAVA  
**DSECT name:** PAVA

<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	PAVA Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: caller-provided Key: caller-provided Residency: caller-provided
<b>Size:</b>	PAVA header - 20 bytes PAVA entry - 60 bytes per entry if non-extended format was requested. - 96 bytes per entry if extended format was requested.
<b>Created by:</b>	issuer of UCBINFO PAVINFO
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A

**Function:**

The IOSDPAVA macro maps the input/output area that is specified via the PAVAREA keyword when the PAVINFO or HYPERPAVALIASES function is specified on the UCBINFO macro.

The PAVA consists of the following:

- A header that contains information such as the version number, the total size of the PAVA, and the number of entries.

- One or more entries that contains I/O response time statistics such as the accumulated connect and pending times from the channel measurement block.

If PAVINFOSUM=YES is specified on the UCBINFO PAVINFO macro, a single entry is created that contains the sum of the I/O response time statistics from the base device and all aliases bound to the base device at the time the UCBINFO PAVINFO macro is issued.

If PAVINFOSUM=NO is specified on the UCBINFO PAVINFO macro, a separate entry is created for the base or non-PAV device, and each alias that is bound to the base device.

If UCBINFO HYPERPAVALIASES is specified, a separate entry is created for each HyperPAV alias for the logical subsystem associated with the input base device.

For UCBINFO PAVINFO requests, the EXTFORMAT keyword specifies whether the extended or non-extended format of the PAVA is being requested. The extended format is required if your program needs to obtain new information that is added to the PAVA, and also allows z/OS to extend the length of the PAVA entry in the future without affecting existing programs.

The value specified for the EXTFORMAT keyword on the UCBINFO PAVINFO macro must match the value specified on the IOSDPAVA macro. Otherwise, your program may not work correctly.

If the extended format PAVA is requested, the following occurs:

- IOSDPAVA macro - The PAVA device entry will be generated as a separate DSECT/structure instead of an array following the PAVA header.

- UCBINFO PAVINFO service

- The PAVA header will contain a version of 3 or higher depending on the output version specified on the UCBINFO macro and the highest version supported by the service routine.

- PAVAELEN will contain the length of each device entry. This length should be used to access the next device entry instead of the compile time length.

If the non-extended format PAVA is requested, the following occurs:

- IOSDPAVA macro - The PAVA device entry will be generated as an array following the PAVA header.

- UCBINFO PAVINFO service

- The PAVA header will contain a version of 2 or lower.

- PAVAELEN will be unpredictable depending on the level of the UCBINFO PAVINFO service routine code. For PLX, the next device entry may be accessed by incrementing

the index used to address the PAVA array element. For assembler, the next device entry may be accessed by adding the length of PAVArray to the current pointer. The following shows what the PAVA looks like depending on whether the extended or non-extended was requested:  
 Extended Format = Yes      Extended Format = No

-----	-----
1 PAVA	1 PAVA
3 PAVAHead	3 PAVAHead
5 PAVAIId	5 PAVAIId
5 PAVAVers (3 or higher)	5 PAVAVers (2 or lower)
...	...
5 PAVATokn	5 PAVATokn
5 PAVAHend (End of header)	
1 PAVAEEntry Based	3 PAVAAArray(*)
5 PAVADevn	5 PAVADevn
5 Flags and statistics	5 Flags and statistics
5 PAVAElen (non-zero)	5 PAVAElen (unpredictable)
3 PAVAEfStart (extfmt start)	
5 Version 3 information	
5 Version x information...	

Note: If your program is compiled with the level of the UCBINFO PAVINFO macro that supports the EXTFORMAT keyword, but your program runs on a system that does not have the extended format support, a non-extended format PAVA will be returned. Your program can detect this condition by checking the version number. If the version number is less than 3, then a non-extended format PAVA was returned. In this case, you may still use the extended format IOSDPAVA macro to access the data. However, you cannot use the PAVAElen field to address the subsequent PAVA entries, and you cannot access any fields that appear in version 3 and higher sections.

## IOSDPAVA mapping

Table 892. Structure PAVA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PAVA	PAVA information mapping
0	(0)	CHARACTER	20	PAVAHEAD(0)	Header
0	(0)	CHARACTER	4	PAVAID	Eye catcher
4	(4)	BITSTRING	1	PAVAVERS	Version
5	(5)	BITSTRING	1	PAVAPCNT	If the requested device is a HyperPAV base device, this field contains the count of HyperPAV alias devices configured in the LSS pool.
6	(6)	SIGNED	2	PAVALNTH	Length of PAVA as input to UCBINFO service

Table 892. Structure PAVA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
8	(8)	SIGNED	2	PAVATCNT	--- For PAVINFO requests: If PAVAPAVB is on indicating the input device is an active PAV-base, then this field contains the current total number of PAV devices associated with the input device (i.e., the count of bound PAV-alias devices plus 1 for the PAV-base). Otherwise, this field is set to one. Note: If the PAVINFO service indicates the PAVAREA was not large enough to contain all of the device entries, this field should be used to recalculate the new size for the PAVAREA. The new size is the PAVA header plus the size of a PAVA entry multiplied by the PAVATCNT --- For HYPERPAVALIASES requests: If the input device is a HyperPAV device, this field contains the current total number of alias exposures in the logical subsystem for the input device.
10	(A)	SIGNED	2	PAVARCNT	Count of the number of PAVA entries filled in by this service. Notes: . This field is not equal to PAVATCNT when the PAVAREA passed by the caller is not large enough to contain all of the PAV devices associated with the input device . If PAVINFOSUM=YES is specified, PAVARCNT is set equal to PAVATCNT by this service
12	(C)	CHARACTER	4	PAVAIOQ(0)	IOQ counts
12	(C)	SIGNED	2	PAVAIOQS	Number of started IOQs
14	(E)	SIGNED	2	PAVAIOQC	Total number of IOQs
16	(10)	CHARACTER	4	PAVATOKN	PAV token - changes every time the set of PAV-Alias devices change in any way
20	(14)	CHARACTER	60	PAVARRAY(0)	PAVA array element. Each element represents a single exposure in the PAV. The first element contains information on the PAV-base device and the subsequent entries contain information on the bound PAV-alias device(s). If HYPERPAVALIASES is selected, each element represents a single HyperPAV-alias device in the logical subsystem for the input device. Note: If the input device is a non-PAV DASD, only the first element will be filled in and will contain information for the input device.
20	(14)	SIGNED	2	PAVADEVN	Device number
22	(16)	CHARACTER	2	PAVAFLG1(0)	Flag byte
		1... ....		PAVAPAVC	"X'80'" PAV-base capability
		.1.. ....		PAVAPAVB	"X'40'" Indicates that the input device is an active PAV-base. This implies the PAV-base has one or more bound PAV-alias devices associated with it.
		..1. ....		PAVAPAVA	"X'20'" PAV-Alias device
		...1 ....		PAVAPAVW	"X'10'" Customer has requested that this PAV device be WLM managed
		.... 1...		PAVAMCMB	"X'08'" Indicates if measurement data is collected for this device
		.... .1..		PAVASTSC	"X'04'" Indicates if model dependent subchannel data was stored

Table 892. Structure PAVA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		PAVADBTs	"X'02'" Indicates if device busy time was stored (version 1 and above)
		.... ...1		PAVAPAVH	"X'01'" Indicates if the device is a HyperPAV device.
24	(18)	CHARACTER	32	PAVACMB(0)	If PAVAMCMB is set, Channel Measurement Block Data
24	(18)	SIGNED	2	PAVASCHC	SSCH+RSCH instruction count
26	(1A)	SIGNED	2	PAVASAMP	Sample count
28	(1C)	SIGNED	4	PAVACONN	Connect time
32	(20)	SIGNED	4	PAVAPEND	Pending time
36	(24)	SIGNED	4	PAVADISC	Disconnect time
40	(28)	SIGNED	4	PAVACUQT	Control unit queue time
44	(2C)	SIGNED	4	PAVADAO	Device-active-only time
48	(30)	SIGNED	4		Reserved
52	(34)	SIGNED	4	PAVAICMR	Initial command response time
56	(38)	CHARACTER	12	PAVASMDB(0)	Subchannel model dependent data
56	(38)	SIGNED	4	PAVADBSY	Device Busy time
60	(3C)	SIGNED	4	PAVACBSY	Control-Unit Busy time
64	(40)	SIGNED	4	PAVASBSY	Switch Busy time
68	(44)	CHARACTER	8	PAVAECMB(0)	If PAVAMCMB is set, 4 byte ECMB channel measurement counts (version 1 and above)
68	(44)	SIGNED	4	PAVASCH4	4-byte SSCH+RSCH count
72	(48)	SIGNED	4	PAVASAM4	4-byte sample count
76	(4C)	BITSTRING	1	PAVASSID	Subchannel set id (version 2 and above)
77	(4D)	CHARACTER	1		Reserved
78	(4E)	SIGNED	2	PAVAELEN	Length of entry. This field is filled in for version 3 and above
80	(50)	SIGNED	4	PAVANEFEND(0)	End of non-extended format entry
80	(50)	X'C1E5C1'	0	PAVANAME	"C'PAVA'" Defines PAVAIID field
80	(50)	X'1'	0	PAVAVER1	"1" PAVAVERS version 1
80	(50)	X'2'	0	PAVAVER2	"2" PAVAVERS version 2
80	(50)	X'3'	0	PAVAVER3	"3" PAVAVERS version 3
80	(50)	X'50'	0	PAVA_LEN	"L'PAVAHead+(PAVANEFEnd-PAVADevn)" Length of PAVA header plus one non-extended format PAVA entry

Table 893. Cross Reference for IOSDPAVA

Name	Offset	Hex Tag
PAVA	0	
PAVA_LEN	50	50
PAVACBSY	3C	
PAVACMB	18	
PAVACONN	1C	
PAVACUQT	28	
PAVADAO	2C	



Table 893. Cross Reference for IOSDPAVA (continued)

Name	Offset	Hex Tag
PAVADBSY	38	
PAVADBTS	16	2
PAVADEVN	14	
PAVADISC	24	
PAVAECMB	44	
PAVAELEN	4E	
PAVAFLG1	16	
PAVAHEAD	0	
PAVAICMR	34	
PAVAID	0	
PAVAIOQ	C	
PAVAIOQC	E	
PAVAIOQS	C	
PAVALNTH	6	
PAVAMCMB	16	8
PAVANAME	50	C1E5C1
PAVANEFEND	50	
PAVAPAVA	16	20
PAVAPAVB	16	40
PAVAPAVC	16	80
PAVAPAVH	16	1
PAVAPAVW	16	10
PAVAPCNT	5	
PAVAPEND	20	
PAVARCNT	A	
PAVARRAY	14	
PAVASAMP	1A	
PAVASAM4	48	
PAVASBSY	40	
PAVASCHC	18	
PAVASCH4	44	
PAVASMDB	38	
PAVASSID	4C	
PAVASTSC	16	4
PAVATCNT	8	
PAVATOKN	10	
PAVAVERS	4	
PAVAVER1	50	1
PAVAVER2	50	2

Table 893. Cross Reference for IOSDPAVA (continued)

Name	Offset	Hex	Tag
PAVAVER3	50		3

## IOSDPAVE information

### IOSDPAVE programming interface information

IOSDPAVE is a programming interface.

### IOSDPAVE heading information

<b>Common name:</b>	IOS Parallel Access Volume Exit Table
<b>Macro ID:</b>	IOSDPAVE
<b>DSECT name:</b>	PAVE
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	PAVE Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: N/A Auxiliary Storage: N/A Subpool: Nucleus Key: N/A Data Space: N/A Residency: Above 16M Line
<b>Size:</b>	8-Byte Header plus 4-bytes per entry
<b>Created by:</b>	IOSVDATA
<b>Pointed to by:</b>	IOCPAVE field of the IOCOM
<b>Serialization:</b>	Compare and Swap (CS) when setting Exit Table Entries
<b>Function:</b>	IOSDPAVE maps the Parallel Access Volume (PAV) exit table to be used by callers who require synchronous notification when the PAV state changes for a device. Note that asynchronous notification is done via ENF 33 processing.

### IOSDPAVE mapping

Table 894. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Table 895. Structure PAVE

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PAVE	IOS PAV Exit Table

Table 895. Structure PAVE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	8	PAVEHDR(0)	PAVE Header
0	(0)	CHARACTER	4	PAVEID	Eye Catcher - "PAVE"
4	(4)	BITSTRING	1	PAVEVERS	PAVE Version
5	(5)	BITSTRING	3		Reserved
8	(8)	BITSTRING	16	PAVEARRAY(0)	PAVE Entry Array
8	(8)	SIGNED	4	PAVEENTRY(0)	PAVE Entry
8	(8)	SIGNED	4	PAVERTN	Exit Routine Address
PAVE Constants					
24	(18)	X'4'	0	PAVEMAXENTRY	"4" Current number of entries in the PAVE

Table 896. Cross Reference for IOSDPAVE

Name	Offset	Hex Tag
PAVE	0	
PAVEARRAY	8	
PAVEENTRY	8	
PAVEHDR	0	
PAVEID	0	
PAVEMAXENTRY	18	4
PAVERTN	8	
PAVEVERS	4	

## IOSDSCCI information

### IOSDSCCI programming interface information

IOSDSCCI is a programming interface.

### IOSDSCCI heading information

<b>Common name:</b>	IOSSCM ConfigInfo Output Mapping
<b>Macro ID:</b>	IOSDSCCI
<b>DSECT name:</b>	SCCI
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	SCCI Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: Any Key: Any Residency: Any
<b>Size:</b>	48 bytes
<b>Created by:</b>	Issuer of IOSSCM CONFIGINFO

**Pointed to by:** n/a

**Serialization:** None

**Function:** IOSDSCCI maps the information which is returned by the IOSSCM macro when CONFIGINFO is requested. It contains storage class memory (SCM) configuration information including size of the measurement block and the number of resource parts.

## IOSDSCCI mapping

Table 897. Structure SCCI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCCI	SCCI - IOSSCM ConfigInfo Output mapping
0	(0)	CHARACTER	4	SCCI_ID	Control block acronym
4	(4)	BITSTRING	1	SCCI_VERSION	Version number
5	(5)	BITSTRING	1	SCCI_LENGTH	Length of the SCCI header
6	(6)	CHARACTER	2		
8	(8)	SIGNED	4	SCCI_EADMNUMOFDEV	The Number of EADM devices (subchannels). This can be used to determine the storage size required for the IOSDSCDI information returned by IOSSCM DevInfo request
12	(C)	SIGNED	2	SCCI_MEASBLKSZ	Measurement block size, in bytes. The measurement blocks are in contiguous virtual storage. This block size can be used to traverse the SCM measurement block structure.
14	(E)	SIGNED	2	SCCI_MAXRESPARTS	Maximum number of SCM- Resource Parts. This count can be used when traversing the SCM measurement block structure.
16	(10)	SIGNED	4	SCCI_DATAUNITSZ	SCM data unit size, in bytes
20	(14)	CHARACTER	4		
24	(18)	ADDRESS	8	SCCI_MEASBLKPTR	Virtual address of the area containing lists of SCM- Measurement Blocks. The blocks are in contiguous virtual storage. The mapping for a measurement block is contained in the IOSDSCMM macro.
32	(20)	CHARACTER	16		Reserved
48	(30)	CHARACTER	1	SCCI_ENDV0(0)	End of SCCI - version 0
48	(30)	CHARACTER	1	SCCI_END(0)	End of SCCI
SCCI Constants					
48	(30)	X'C3C3C9'	0	SCCI_EYECATCHER	"C'SCCI'" SCCI control block identifier
48	(30)	X'0'	0	SCCI_VERSION_INITIAL	"0" Initial SCCI version number
48	(30)	X'0'	0	SCCI_VERSION_CURRENT	"0" Current SCCI version number
48	(30)	X'30'	0	SCCI_LEN	"*-SCCI"

Table 898. Cross Reference for IOSDSCCI

Name	Offset	Hex Tag
SCCI	0	
SCCI_DATAUNITSZ	10	

Table 898. Cross Reference for IOSDSCCI (continued)

Name	Offset	Hex Tag
SCCI_EADNUMOFDEV	8	
SCCI_END	30	
SCCI_ENDV0	30	
SCCI_EYECATCHER	30	C3C3C9
SCCI_ID	0	
SCCI_LEN	30	30
SCCI_LENGTH	5	
SCCI_MAXRESPARTS	E	
SCCI_MEASBLKPTR	18	
SCCI_MEASBLKSZ	C	
SCCI_VERSION	4	
SCCI_VERSION_CURRENT	30	0
SCCI_VERSION_INITIAL	30	0

## IOSDSCDI information

### IOSDSCDI programming interface information

IOSDSCDI is a programming interface.

### IOSDSCDI heading information

**Common name:** IOSSCM DevInfo Output Mapping

**Macro ID:** IOSDSCDI

**DSECT name:** SCDI SCDIEnt

**Owning component:** I/O Supervisor (SC1C3)

**Eye-catcher ID:**  
SSDI  
Offset: 0  
Length: 4

**Storage attributes:** Subpool: Any  
Key: Any  
Residency: Any

**Size:**  
Header (SCDI) = 16 bytes  
Entry (SCDIEnt) = 72 bytes

**Created by:** Issuer of IOSSCM DEVINFO

**Pointed to by:** n/a

**Serialization:** None

**Function:**  
IOSDSCDI maps the information which is returned by the IOSSCM macro when DEVINFO is requested. It contains storage class memory (SCM) device information including response time statistics.

## IOSDSCDI mapping

Table 899. Structure SCDI

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCDI	SCDI - IOSSCM DevInfo Output mapping
0	(0)	CHARACTER	16	SCDI_HDR	
0	(0)	CHARACTER	4	SCDI_ID	Control block acronym
4	(4)	BITSTRING	1	SCDI_VERSION	Version number
5	(5)	BITSTRING	1	SCDI_LENGTH	Length of the SCDI header
6	(6)	CHARACTER	2		Reserved
8	(8)	SIGNED	4	SCDI_NUMENTRIES	Number of device entries. Each device entry is mapped by SCDIENT defined below.
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	1	SCDI_ENDV0(0)	End of SCDI - version 0
16	(10)	CHARACTER	1	SCDI_END(0)	End of SCDI - current version
16	(10)	X'10'	0	SCDI_LEN	"*-SCDI"

Table 900. Structure SCDIENT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCDIENT	SCDI - IOSSCM DevInfo Entry mapping
0	(0)	SIGNED	2	SCDIENT_LENGTH	Length of the current SCDI Entry
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	SCDIENT_SUBCHID	Subsystem-identification word which contains subchannel information
8	(8)	SIGNED	4	SCDIENT_SSCHCOUNT	SSCH count
12	(C)	SIGNED	4	SCDIENT_SAMPLECOUNT	Number of updates to the time-accumulation fields
16	(10)	SIGNED	4	SCDIENT_FUNCPENDTIME	Function-pending time. The time lapse between the SSCH being issued and the acceptance of the first command of the channel program at the device. Time units= 128 microseconds
20	(14)	SIGNED	4	SCDIENT_IOPQUEUEINGTIME	IOP-queuing time. The amount of time the request is not accepted at the SCM resource because it would exceed its maximum capacity. Time units= 128 microseconds
24	(18)	SIGNED	4	SCDIENT_INITCMDRESPTIME	Initial cmd-response time. The time from when the first command does not immediately proceed to execute until the successful start of execution at the SCM resource part. Time units= 128 microseconds
28	(1C)	SIGNED	4	SCDIENT_COMPRESSOPCOUNT	Number of compression operations.
32	(20)	SIGNED	4	SCDIENT_DECOMPRESSOPCOUNT	Number of de- compression operations
36	(24)	SIGNED	4	SCDIENT_COMPRESSINPUTBYTES	Number of 1M input blocks consumed for compression
40	(28)	SIGNED	4	SCDIENT_COMPRESSOUTPUTBYTES	Number of 1M output blocks consumed for compression
44	(2C)	SIGNED	4	SCDIENT_DECOMPRESSINPUTBYTES	Number of 1M input blocks consumed for decompression
48	(30)	SIGNED	4	SCDIENT_DECOMPRESSOUTPUTBYTES	

Table 900. Structure SCDIENT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Number of 1M output blocks consumed for decompression
52	(34)	CHARACTER	20		Reserved
72	(48)	CHARACTER	1	SCDIENT_ENDV0(0)	End of SCDIENT- version 0
72	(48)	CHARACTER	1	SCDIENT_END(0)	End of SCDIENT- current
SCDI Constants					
72	(48)	X'C3C4C9'	0	SCDI_EYECATCHER	"C'SCDI'" SCDI control block identifier
72	(48)	X'0'	0	SCDI_INITIAL_VERSION	"0" Initial SCDI version number
72	(48)	X'0'	0	SCDI_VERSION_CURRENT	"0" Current SCDI version number
72	(48)	X'48'	0	SCDIENT_LEN	"*-SCDIEnt"

Table 901. Cross Reference for IOSDSCDI

Name	Offset	Hex	Tag
SCDI	0		
SCDI_END	10		
SCDI_ENDV0	10		
SCDI_EYECATCHER	48	C3C4C9	
SCDI_HDR	0		
SCDI_ID	0		
SCDI_INITIAL_VERSION	48		0
SCDI_LEN	10		10
SCDI_LENGTH	5		
SCDI_NUMENTRIES	8		
SCDI_VERSION	4		
SCDI_VERSION_CURRENT	48		0
SCDIENT	0		
SCDIENT_COMPRESSINPUTBYTES	24		
SCDIENT_COMPRESSOPCOUNT	1C		
SCDIENT_COMPRESSOUTPUTBYTES	28		
SCDIENT_DECOMPRESSINPUTBYTES	2C		
SCDIENT_DECOMPRESSOPCOUNT	20		
SCDIENT_DECOMPRESSOUTPUTBYTES	30		
SCDIENT_END	48		
SCDIENT_ENDV0	48		
SCDIENT_FUNCPENDTIME	10		
SCDIENT_INITCMDRESPTIME	18		
SCDIENT_IOPQUEUEINGTIME	14		
SCDIENT_LEN	48		48
SCDIENT_LENGTH	0		

Table 901. Cross Reference for IOSDSCDI (continued)

Name	Offset	Hex Tag
SCDIENT_SAMPLECOUNT	C	
SCDIENT_SSCHCOUNT	8	
SCDIENT_SUBCHID	4	

## IOSDSCMM information

### IOSDSCMM programming interface information

IOSDSCMM is a programming interface.

### IOSDSCMM heading information

<b>Common name:</b>	SCM-Measurement Block
<b>Macro ID:</b>	IOSDSCMM
<b>DSECT name:</b>	SCMM SCMM_MDD
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Whatever IARST64 gives us (Fixed, common, SQA/ESQA) Key: 0 Residency: Above the bar
<b>Size:</b>	Designated by the hardware Frequency: Designated by hardware
<b>Created by:</b>	IECVIOSI
<b>Pointed to by:</b>	The storage that contains all of the individual blocks is pointed to by: SCCI_MEASBLKPTR in IOSDSCCI (external use) COPB_SCM_MBS_PTR in IOSDCOPB (internal use) Individual blocks are addressed by the user's pointer.
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps the measurement blocks that are associated with SCM resource parts and that are updated by the Storage-Class-Memory-Measurements facility

### IOSDSCMM mapping

Table 902. Structure SCMM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCMM	
0	(0)	SIGNED	2	SCMM_SCMRESOURCEID	
2	(2)	SIGNED	2	SCMM_PARTID	
4	(4)	BITSTRING	1	SCMM_FLAGS	

Bit definitions:



Table 902. Structure SCMM (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		SCMM_LASTBLOCK	"X'80'" This is the last block
5	(5)	SIGNED	3	SCMM_TIMESTAMP	
8	(8)	BITSTRING	1	SCMM_W2BYTE0	Word 2, byte 0
9	(9)	BITSTRING	1	SCMM_W2BYTE1	Word 2, byte 1
Bit definitions:					
		.... 1111		SCMM_IMPLLEVEL	"X'0F'" Implementation level
10	(A)	SIGNED	2	SCMM_MODELDEPDATAOFFSET	Offset from the origin of the SCM-measurement block to the start of the model-dependent-data field
12	(C)	SIGNED	4	SCMM_REQSPROCESSEDCPC	Internal requests processed by the SCM- resource part
16	(10)	SIGNED	4	SCMM_REQSPROCESSED	Internal requests processed by the SCM- resource part
20	(14)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Data units written to the SCM-resource part
24	(18)	SIGNED	4	SCMM_DATAUNITSWRITTEN	Data units written to the SCM-resource part
28	(1C)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Data units read from the SCM-resource part
32	(20)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Data units read from the SCM-resource part
36	(24)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Data units read from the SCM-resource part
40	(28)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Aggregate time spent on execution of requests involving the SCM- resource part
44	(2C)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Aggregate time spent on execution of requests involving the SCM- resource part
48	(30)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Accumulated IOP-queueing time
52	(34)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Utilization of the SCM resource part expressed as a count of work units
52	(34)	X'38'	0	SCMM_LEN	Utilization of the SCM resource part expressed as a count of work units
					"*-SCMM"

Table 903. Structure SCMM\_MDD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCMM_MDD	SCM- Measurement Block model-dependent data
0	(0)	CHARACTER	1	SCMM_MODELDEPDAT(0)	
Implementation Levels 0 - Initial architecture level 1 - When the implementation level is 1, both utilization values are reported as the sum of the average utilization in percent per second for each channel reporting interval times the number of seconds in the interval. Software can extrapolate the average utilization in percent across the software reporting interval by subtracting the previous measurement block utilization value from the current utilization value and dividing by the number of seconds within the software interval.					
		.... ....		SCMM_IMPLLEVEL_0	"B'00000000'" Implementation level 0
		.... ...1		SCMM_IMPLLEVEL_1	"B'00000001'" Implementation level 1
0	(0)	X'0'	0	SCMM_MDD_LEN	"*-SCMM_MDD"

Table 904. Cross Reference for IOSDSCMM

Name	Offset	Hex	Tag
SCMM	0		
SCMM_AGGRESRESPTIME	28		
SCMM_AGGRESRESPTIMECPC	24		
SCMM_DATAUNITSREAD	20		
SCMM_DATAUNITSREADCPC	1C		
SCMM_DATAUNITSWRITTEN	18		
SCMM_DATAUNITSWRITTENCPC	14		
SCMM_FLAGS	4		
SCMM_IMPLLEVEL	9		F
SCMM_IMPLLEVEL_0	0		0
SCMM_IMPLLEVEL_1	0		1
SCMM_IOPQUEUINGTIMECPC	2C		
SCMM_LASTBLOCK	4		80
SCMM_LEN	34		38
SCMM_MDD	0		
SCMM_MDD_LEN	0		0
SCMM_MODELDEPDATA	0		
SCMM_MODELDEPDATAOFFSET	A		
SCMM_PARTID	2		
SCMM_REQSPROCESSED	10		
SCMM_REQSPROCESSEDCPC	C		
SCMM_SCMRESOURCEID	0		
SCMM_TIMESTAMP	5		
SCMM_UTILIZATION	34		
SCMM_UTILIZATIONCPC	30		
SCMM_W2BYTE0	8		
SCMM_W2BYTE1	9		

## IOSDSHID information

### IOSDSHID programming interface information

IOSDSHID is a programming interface.

### IOSDSHID heading information

<b>Common name:</b>	System Host ID Mapping
<b>Macro ID:</b>	IOSDSHID
<b>DSECT name:</b>	SHID
<b>Owning component:</b>	I/O Supervisor (SC1C3)

**Eye-catcher ID:** None

**Storage attributes:** Main Storage: YES  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: N/A - Nucleus resident  
Key: 0  
Residency: Any

**Size:** 56 bytes

**Created by:** IOSVDATA

**Pointed to by:** CVTHID field of the CVT data area

**Serialization:** None

**Function:** Maps the System Host ID, Alternate System Host ID, Central Processing Complex Node Descriptor and Central Processing Complex Node Identifier  
ACRONYM = SHID

## IOSDSHID mapping

Table 905. Structure SHID

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SHID	
System Host ID Mapping					
0	(0)	CHARACTER	11	SHID_SHID(0)	System Host Identifier
0	(0)	CHARACTER	2	SHID_BYTES01	Byte 0 and 1 definitions
0	(0)	X'0'	0	SHID_CPUAD	"SHID_BYTES01+0,2" CPU address format 0 PGID
0	(0)	X'0'	0	SHID_FMT1_BYTES01	"SHID_BYTES01+0,2" Byte 0 and 1 definitions for format 1 path group id (PGID)
0	(0)	X'0'	0	SHID_FORMAT	"SHID_FMT1_BYTES01+0,1" Format byte
		.... ....		SHID_PGIDFMT0	"X'00'" PGID format zero
		1... ....		SHID_PGIDFMT1	"X'80'" PGID format one
		.... 1...		SHID_VM	"X'08'" VM hipervisor created the PGID
0	(0)	X'1'	0	SHID_CSSID	"SHID_FMT1_BYTES01+1,1" Channel Subsystem ID
2	(2)	CHARACTER	5	SHID_INFO(0)	CPU serial/model numbers
2	(2)	CHARACTER	3	SHID_BYTES234	Define Bytes 2 3 and 4
2	(2)	X'2'	0	SHID_CPUID	"SHID_BYTES234+0,3" CPU serial number format 0 PGID
2	(2)	X'2'	0	SHID_FMT1_BYTES234	"SHID_BYTES234+0,3" Define bytes 2,3 and 4 for format 1 PGID
2	(2)	X'2'	0	SHID_LPID	"SHID_FMT1_BYTES234+0,1" LPAR ID
2	(2)	X'3'	0	SHID_CPSN	"SHID_FMT1_BYTES234+1,2" CPU serial number
5	(5)	CHARACTER	2	SHID_MODNO	CPU model number
7	(7)	CHARACTER	4	SHID_TODCL	Time of day clock (left half)
Alternate System Host ID Mapping					
11	(B)	CHARACTER	11	SHID_AHID(0)	Alternate System Host ID

Table 905. Structure SHID (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
11	(B)	CHARACTER	2	AHID_BYTES01	Byte 0 and 1 definitions
11	(B)	X'0'	0	AHID_CPUAD	"SHID_BYTES01+0,2" CPU address format 0 PGID
11	(B)	X'0'	0	AHID_FMT1_BYTES01	"SHID_BYTES01+0,2" Byte 0 and 1 definitions for format 1 path group id
11	(B)	X'0'	0	AHID_FORMAT	"SHID_FMT1_BYTES01+0,1" Format byte
		.... ....		AHID_PGIDFMT0	"X'00'" PGID format zero
		1... ....		AHID_PGIDFMT1	"X'80'" PGID format one
		.... 1...		AHID_VM	"X'08'" VM hipervisor created the PGID
11	(B)	X'1'	0	AHID_CSSID	"SHID_FMT1_BYTES01+1,1" Channel Subsystem ID
13	(D)	CHARACTER	5	AHID_INFO(0)	CPU serial/model numbers
13	(D)	CHARACTER	3	AHID_BYTES234	Define Bytes 2 3 and 4
13	(D)	X'2'	0	AHID_CPUID	"SHID_BYTES234+0,3" CPU serial number format 0 PGID
13	(D)	X'2'	0	AHID_FMT1_BYTES234	"SHID_BYTES234+0,3" Define bytes 2,3 and 4 for format 1 PGID
13	(D)	X'2'	0	AHID_LPID	"SHID_FMT1_BYTES234+0,1" LPAR ID
13	(D)	X'3'	0	AHID_CPSN	"SHID_FMT1_BYTES234+1,2" CPU serial number
16	(10)	CHARACTER	2	AHID_MODNO	CPU model number
18	(12)	CHARACTER	4	AHID_TODCL	Time of day clock (left half)
Central Processing Complex Node Descriptor Note - The data indicated by CPCND_SDC is only valid when the first three bits of CPCND_FLAGS (CPCND_VALID) do not equal CPCND_INVAL.					
22	(16)	CHARACTER	32	SHID_CPCND(0)	CPC Node Descriptor
22	(16)	BITSTRING	1	CPCND_FLAGS	Flags
		111. ....		CPCND_VALID	"X'E0'" Node descriptor validity
		.1.. ....		CPCND_INVAL	"X'40'" Node descriptor invalid
		...1 ....		CPCND_NTTYPE	"X'10'" Node type
EQU X'0F' Reserved					
23	(17)	CHARACTER	3	CPCND_PARMS	Node parameters
26	(1A)	CHARACTER	28	CPCND_SDC(0)	Self-describing component (SDC) Identifier
26	(1A)	CHARACTER	6	CPCND_TYPE	Type number
32	(20)	CHARACTER	3	CPCND_MODEL	Model number
35	(23)	CHARACTER	3	CPCND_MAN	Manufacturer
38	(26)	CHARACTER	2	CPCND_PLANT	Plant of manufacture
40	(28)	CHARACTER	12	CPCND_SEQNO	Sequence number
52	(34)	CHARACTER	2	CPCND_TAG	Tag
Central Processing Complex Node Identifier Mapping					
54	(36)	CHARACTER	2	SHID_CPCID(0)	
54	(36)	BITSTRING	1	CPCID_FLAGS	Validity Flags
		1... ....		CPCID_VALID	"X'80'" Valid indicator

Table 905. Structure SHID (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
55	(37)	CHARACTER	1	CPCID_MAP	The last six bits of this byte must be filled with the CPCID
Central Processing Complex World Wide Node Name					
56	(38)	BITSTRING	8	SHID_CPCWWNN	CPC WWNN - if all zeros, WWNN could not be retrieved
Channel Image Id					
64	(40)	BITSTRING	1	SHID_CHIMAGEID	Channel Image Id

Table 906. Cross Reference for IOSDSHID

Name	Offset	Hex Tag
AHID_BYTES01	B	
AHID_BYTES234	D	
AHID_CPSN	D	3
AHID_CPUAD	B	0
AHID_CPUID	D	2
AHID_CSSID	B	1
AHID_FMT1_BYTES01	B	0
AHID_FMT1_BYTES234	D	2
AHID_FORMAT	B	0
AHID_INFO	D	
AHID_LPID	D	2
AHID_MODNO	10	
AHID_PGIDFMT0	B	0
AHID_PGIDFMT1	B	80
AHID_TODCL	12	
AHID_VM	B	8
CPCID_FLAGS	36	
CPCID_MAP	37	
CPCID_VALID	36	80
CPCND_FLAGS	16	
CPCND_INVALID	16	40
CPCND_MAN	23	
CPCND_MODEL	20	
CPCND_NTTYPE	16	10
CPCND_PARMs	17	
CPCND_PLANT	26	
CPCND_SDC	1A	
CPCND_SEQNO	28	
CPCND_TAG	34	

Table 906. Cross Reference for IOSDSHID (continued)

Name	Offset	Hex Tag
CPCND_TYPE	1A	
CPCND_VALID	16	E0
SHID	0	
SHID_AHID	B	
SHID_BYTES01	0	
SHID_BYTES234	2	
SHID_CHIMAGEID	40	
SHID_CPCID	36	
SHID_CPCND	16	
SHID_CPCWNN	38	
SHID_CPSN	2	3
SHID_CPUAD	0	0
SHID_CPUID	2	2
SHID_CSSID	0	1
SHID_FMT1_BYTES01	0	0
SHID_FMT1_BYTES234	2	2
SHID_FORMAT	0	0
SHID_INFO	2	
SHID_LPID	2	2
SHID_MODNO	5	
SHID_PGIDFMT0	0	0
SHID_PGIDFMT1	0	80
SHID_SHID	0	
SHID_TODCL	7	
SHID_VM	0	8

## IOSDSLDP information

### IOSDSLDP programming interface information

IOSDSLDP is a programming interface.

### IOSDSLDP heading information

<b>Common name:</b>	Synchronous I/O Link Performance Data
<b>Macro ID:</b>	IOSDSLDP
<b>DSECT name:</b>	SLPD
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	None

**Storage attributes:** Subpool: Caller supplied  
Key: 0  
Residency: Caller supplied

**Size:** Release Dependent. Refer to the mapping.

**Created by:** - IOSSILPF (Synch I/O Link Performance Exit)

**Pointed to by:** Contained within the performance data return area that is passed as a parameter on the IQPINFO macro call.

**Serialization:** None

**Function:** This is a mapping for the synchronous I/O link specific performance data that is returned by the IQPINFO macro for a PCIE function. This information follows the device type header mapped by PerfDTHdr in macro IQPYPERF. The synchronous I/O link specific performance data consists of the following sections:  
-- Header - This section contains the node descriptor of the storage controller for this link, as well as the offsets of the read and write response time sections. This section is mapped by structure SLPDHdr in this macro. The length of this section and all subsequent sections is put into field PerfDTHdr\_Length in the PCIE device type header in macro IQPYPERF.  
-- Read response time section - This section contains a set of buckets that represent a range of read response time values for the synchronous I/O link. The number of buckets and the range of values represented are static during the life of an IPL. Each bucket contains a range value in microseconds and a sample count. The range values are interpreted as follows:  
-- The first range represents response times less than the range value. For example, if the range value is 10, then this bucket represents response time values less than 10 microseconds.  
-- The remaining ranges represent response times less than the range value and greater than or equal to the prior range value. For example, if the range value is 30 and the prior range value was 20, this represents responses in the range:  
20 microseconds <= n < 30 microseconds  
Example:  
Bucket Value Meaning  
-----  
1 20 R/T samples < 20 usec  
2 30 R/T samples between 20 and 29 usec  
3 40 R/T samples between 30 and 39 usec  
4 50 R/T samples between 40 and 49 usec  
5 FFFF R/T samples 50 usec or greater  
This section is mapped by structure SLPDRRT in this macro.  
-- Write response time section - This section contains a set of buckets that represent a range of write response time values for the synchronous I/O link. The number of buckets and the range of values represented are static during the life of an IPL. Each bucket contains a range value in microseconds and a sample count. The range values are interpreted the same as described by the Read response time bucket ranges.  
This section is mapped by structure SLPDWRT in this macro.

## IOSDSLDP mapping

Table 907. Structure SLPDHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SLPDHDR	Synchronous I/O Link Performance Data Header
0	(0)	SIGNED	2	SLPDHDR_LENGTH	Length of the header
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	26	SLPDHDR_ND_SDC	Self describing component (SDC) of the node descriptor
4	(4)	CHARACTER	6	SLPDHDR_ND_TYPE	Type number
10	(A)	CHARACTER	3	SLPDHDR_ND_MODEL	Model number
13	(D)	CHARACTER	3	SLPDHDR_ND_MAN	Manufacturer
16	(10)	CHARACTER	2	SLPDHDR_ND_PLANT	Plant of Manufacture
18	(12)	CHARACTER	12	SLPDHDR_ND_SEQNO	Sequence Number
30	(1E)	BITSTRING	1	SLPDHDR_FLAGS	Flags

Bit definitions:

		1... ....		SLPDHDR_DEGRADED	"X'80'" Port link speed or link width is degraded
31	(1F)	CHARACTER	5		Reserved
36	(24)	SIGNED	2	SLPDHDR_RRT_OFFSET	Offset of the read response time section
38	(26)	SIGNED	2	SLPDHDR_WRT_OFFSET	Offset of the write response time section
40	(28)	SIGNED	4	SLPDHDR_#R_LINKBUSY	The number of synchronous I/O read link busy conditions
44	(2C)	SIGNED	4	SLPDHDR_#W_LINKBUSY	The number of synchronous I/O write link busy conditions
48	(30)	SIGNED	4	SLPDHDR_#R_TIMEOUT	The number of synchronous I/O read timeout conditions
52	(34)	SIGNED	4	SLPDHDR_#W_TIMEOUT	The number of synchronous I/O write timeout conditions
56	(38)	SIGNED	8	SLPDHDR_#R_ACCUMTIME	Accumulated response time for reads in 0.5 usec
64	(40)	SIGNED	8	SLPDHDR_#W_ACCUMTIME	Accumulated response time for writes in 0.5 usec
72	(48)	CHARACTER	24		Reserved

Table 908. Structure SLPDRRT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SLPDRRT	
Read response time section					
0	(0)	CHARACTER	8	SLPDRRT_HDR	
0	(0)	SIGNED	2	SLPDRRT_BUCKET_CNT	Number of response time buckets
2	(2)	CHARACTER	6		Reserved
8	(8)	CHARACTER	8	SLPDRRT_BUCKET	Response time bucket
8	(8)	SIGNED	4	SLPDRRT_RANGE	Range value
12	(C)	SIGNED	4	SLPDRRT_SAMPLES	Sample count



Table 909. Structure SLPDWRT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SLPDWRT	
Write response time section					
0	(0)	CHARACTER	8	SLPDWRT_HDR	
0	(0)	SIGNED	2	SLPDWRT_BUCKET_CNT	Number of response time buckets
2	(2)	CHARACTER	6		Reserved
8	(8)	CHARACTER	8	SLPDWRT_BUCKET	Response time bucket
8	(8)	SIGNED	4	SLPDWRT_RANGE	Range value
12	(C)	SIGNED	4	SLPDWRT_SAMPLES	Sample count

Table 910. Structure SLPDUTIL\_STRINGS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SLPDUTIL_STRINGS	Utility strings
0	(0)	CHARACTER	16	SLPDUTIL_STR1	Utility string 1
0	(0)	CHARACTER	8	SLPDUTIL_WWNN	World wide node name of the attached storage controller
8	(8)	CHARACTER	2	SLPDUTIL_LINKID	Synch I/O link identifier (CULID) of the control unit interface
10	(A)	CHARACTER	6		Reserved
16	(10)	CHARACTER	16	SLPDUTIL_STR2	Utility string 2 - not used
32	(20)	CHARACTER	16	SLPDUTIL_STR3	Utility string 3 - not used
48	(30)	CHARACTER	16	SLPDUTIL_STR4	Utility string 4 - not used
Constants					
48	(30)	X'1'	0	SLPDHDR_CURRVER	"1" Current version of synchronous I/O link performance data header. Set in the PerfDTHdr_Version field of the device type header in macro IQPYPERF
48	(30)	X'1'	0	SLPDHDR_VER1	"1" Version 1 of the header

Table 911. Cross Reference for IOSDSLDP

Name	Offset	Hex	Tag
SLPDHDR	0		
SLPDHDR_#R_ACCUMTIME	38		
SLPDHDR_#R_LINKBUSY	28		
SLPDHDR_#R_TIMEOUT	30		
SLPDHDR_#W_ACCUMTIME	40		
SLPDHDR_#W_LINKBUSY	2C		
SLPDHDR_#W_TIMEOUT	34		
SLPDHDR_CURRVER	30		1
SLPDHDR_DEGRADED	1E		80
SLPDHDR_FLAGS	1E		
SLPDHDR_LENGTH	0		
SLPDHDR_ND_MAN	D		

Table 911. Cross Reference for IOSDSLDP (continued)

Name	Offset	Hex Tag
SLPDHDR_ND_MODEL	A	
SLPDHDR_ND_PLANT	10	
SLPDHDR_ND_SDC	4	
SLPDHDR_ND_SEQNO	12	
SLPDHDR_ND_TYPE	4	
SLPDHDR_RRT_OFFSET	24	
SLPDHDR_VER1	30	1
SLPDHDR_WRT_OFFSET	26	
SLPDRRT	0	
SLPDRRT_BUCKET	8	
SLPDRRT_BUCKET_CNT	0	
SLPDRRT_HDR	0	
SLPDRRT_RANGE	8	
SLPDRRT_SAMPLES	C	
SLPDUTIL_LINKID	8	
SLPDUTIL_STRINGS	0	
SLPDUTIL_STR1	0	
SLPDUTIL_STR2	10	
SLPDUTIL_STR3	20	
SLPDUTIL_STR4	30	
SLPDUTIL_WWNN	0	
SLPDWRT	0	
SLPDWRT_BUCKET	8	
SLPDWRT_BUCKET_CNT	0	
SLPDWRT_HDR	0	
SLPDWRT_RANGE	8	
SLPDWRT_SAMPLES	C	

## IOSDSPOF information

### IOSDSPOF programming interface information

IOSDSPOF is a programming interface.

### IOSDSPOF heading information

<b>Common name:</b>	Single Point of Failure Area
<b>Macro ID:</b>	IOSDSPOF
<b>DSECT name:</b>	SPOFArea SPOFCheck SPOFGroupCheck
<b>Owning component:</b>	I/O Supervisor (SC1C3)

**Eye-catcher ID:** NONE

**Storage attributes:** Subpool: 1  
Key: IOSSPOF callers key  
Residency: 31-bit storage

**Size:** Variable  
SPOFCheck\_CHP\_Diag\_MASK\_Type -- X'000C' bytes  
SPOFChk\_Extension -- X'0010' bytes  
SPOFArea -- X'0030' bytes  
SPOFCheck -- X'011C' bytes  
SPOFGroupCheck -- X'0114' bytes

**Created by:** IOSSPOF Service

**Pointed to by:** Contents of SPOFArea Output Keyword

**Serialization:** None required

**Function:** Maps the particular single points of failure for the set of devices passed to the IOSSPOF service

## IOSDSPOF mapping

Table 912. Structure SPOFArea

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFArea	IOSSPOF output area mapping
0	(0)	CHARACTER	44	SPOFArea_HEADER	SPOFArea Header
0	(0)	CHARACTER	8	SPOFArea_EYECATCH	Eye Catcher 'SPOFArea'
8	(8)	BITSTRING	1	SPOFArea_VERSION	Version level
9	(9)	BITSTRING	1	SPOFArea_HDRLEN	Length of the SPOFArea header
10	(A)	BITSTRING	1	SPOFArea_SUBPOOL	Subpool of SPOFArea
11	(B)	BITSTRING	1		Reserved
12	(C)	SIGNED	4	SPOFArea_LEN	Length of SPOFArea, including header storage and entry storage
16	(10)	SIGNED	4	SPOFArea_NUMENTRIES	Number of entries in SPOFArea_EntriesAddr
20	(14)	CHARACTER	16		Reserved
36	(24)	ADDRESS	4	SPOFArea_SUMCHECKSADDR	Pointer to a SPOFCheck structure that contains a summary of single points of failure to all devices
40	(28)	ADDRESS	4	SPOFArea_GROUPCHECKSADDR	Pointer to a SPOFGroupCheck structure that contains the hardware isolation failures of devices in DEVN1 DEVN2 or VOLSER1 and VOLSER2
44	(2C)	ADDRESS	4	SPOFArea_ENTRIESADDR	Array of pointers to SPOFCheck structures that contains the single point of failure information of the devices passed in
44	(2C)	X'D7D6C6'	0	SPOFArea_EYECATCHCONST_0T03	"C'SPOF'" This is the first 4-byte segment of an 8-byte constant. The eye catcher of the SPOFArea
44	(2C)	X'D9C5C1'	0	SPOFArea_EYECATCHCONST_4T07	"C'AREA'" This is the second 4-byte segment of an 8-byte constant. The eye catcher of the SPOFArea
44	(2C)	X'1'	0	SPOFArea_VERSIONCURRENT	"1" Current version number
44	(2C)	X'1'	0	SPOFArea_VERSIONNONE	"1" Current version is version one

Table 913. Structure SPOFCHECK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFCHECK	Check description mapping
Checks for single points of failure					
0	(0)	BITSTRING	8	SPOFCHECK_MASK64	Mask of single points of failure in 64 bit form
0	(0)	BITSTRING	4	SPOFCHECK_32MASK1	Mask of single points of failure in 32 bit form
0	(0)	BITSTRING	2	SPOFCHECK_16MASK1	Mask of single points of failure in 16 bit form
0	(0)	BITSTRING	1	SPOFCHECK_8MASK1	Mask of single points of failure in 8 bit form
Bit definitions:					
		1... ....		SPOFCHECK_NOTFOUND	"X'80'" Device does not exist
		.1.. ....		SPOFCHECK_NOTONLINE	"X'40'" Device is not online
		..1. ....		SPOFCHECK_NOPATHS	"X'20'" Device has no paths varied online
		...1 ....		SPOFCHECK_ONEPATH	"X'10'" Device has only one path varied online
		.... 1...		SPOFCHECK_ONESWITCH	"X'08'" All online paths go through one switch
		.... .1..		SPOFCHECK_NOPREFPATHS	"X'04'" Device has only non preferred paths online
		.... ..1.		SPOFCHECK_ONLYPREFPATHS	"X'02'" Device has only preferred paths online
		.... ...1		SPOFCHECK_ONEPREFPATH	"X'01'" Device has only one preferred path online
1	(1)	BITSTRING	1	SPOFCHECK_8MASK2	Mask of single points of failure in 8 bit form
Bit definitions:					
		1... ....		SPOFCHECK_HOSTCHPSPF	"X'80'" All chpids share a single point of failure, on the host
		.1.. ....		SPOFCHECK_CUINTERSPF	"X'40'" All control unit interfaces share a single point of failure
		..1. ....		SPOFCHECK_SWCMHDWCOMP	"X'20'" All online paths share one or more common switch hardware components
If the 'N' bits are on the check for single points of failure could not be done, due to check failure.					
8	(8)	BITSTRING	8	SPOFCHECK_NC_MASK64	Mask of single points of failure in 64 bit that couldn't be performed
8	(8)	BITSTRING	4	SPOFCHECK_NC_32MASK1	Mask of single points of failure in 32 bit form
8	(8)	BITSTRING	2	SPOFCHECK_NC_16MASK1	Mask of single points of failure in 16 bit form
8	(8)	BITSTRING	1	SPOFCHECK_NC_8MASK1	Mask of single points of failure in 8 bit form
Bit definitions:					
		1... ....		SPOFCHECK_NNOTFOUND	"X'80'" Device does not exist
		.1.. ....		SPOFCHECK_NC_NOTONLINE	"X'40'" Device is not online

Table 913. Structure SPOFCHECK (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		SPOFCHECK_NC_NOPATHS	"X'20'" Device has no paths varied online
		...1 ....		SPOFCHECK_NC_ONEPATH	"X'10'" Device has only one path varied online
		.... 1...		SPOFCHECK_NC_ONESWITCH	"X'08'" All online paths go through one switch
		.... .1..		SPOFCHECK_NC_NOPREFPATHS	"X'04'" Device has only non preferred paths online
		.... ..1.		SPOFCHECK_NC_ONLYPREFPATHS	"X'02'" Device has only preferred paths online
		.... ...1		SPOFCHECK_NC_ONEPREFPATH	"X'01'" Device has only one preferred path online
9	(9)	BITSTRING	1	SPOFCHECK_NC_8MASK2	Mask of single points of failure in 8 bit form
Bit definitions:					
		1... ....		SPOFCHECK_NC_HOSTCHPSPF	"X'80'" All chpids share a single point of failure, on the host
		.1.. ....		SPOFCHECK_NC_CUINTERSPF	"X'40'" All control unit interfaces share a single point of failure
Validity flags					
16	(10)	BITSTRING	1	SPOFCHECK_FLAGS	Use Flags
Bit definitions:					
		1... ....		SPOFCHECK_DEVNCH_VALID	"X'80'" Is the devnchar valid
		.1.. ....		SPOFCHECK_VOLSER_VALID	"X'40'" Is the VOLSER valid
		..1. ....		SPOFCHECK_CHP_DIAG_VLD	"X'20'" Is the CHP_Diag valid
		...1 ....		SPOFCHECK_CUI_DIAG_VLD	"X'10'" Is the CUI_Diag valid
		.... 1...		SPOFCHECK_EXT_PRESENT	"X'08'" One or more SPOF check extensions are present with this SPOF check
		.... .1..		SPOFCHECK_CHP_HWINFO_NAVAIL	"X'04'" The hardware information needed to check the channel paths for a single point of failure is not available
		.... ..1.		SPOFCHECK_CUI_HWINFO_NAVAIL	"X'02'" The hardware information needed to check the control unit interfaces for a single point of failure is not available
17	(11)	CHARACTER	5	SPOFCHECK_DEVNCHAR	The device number of the device in character form
22	(16)	CHARACTER	6	SPOFCHECK_VOLSER	The VOLSER of the checked device
The CU interface numbers and compare channel components words					
28	(1C)	BITSTRING	12	SPOFCHECK_CHP_DIAG	Resulting host specific compare channel components result word
28	(1C)	CHARACTER	12	SPOFCHECK_CHP_DIAG_CHAR	Resulting host specific compare channel components result word
40	(28)	BITSTRING	2	SPOFCHECK_CUI_DIAG	Control unit interface Area
40	(28)	BITSTRING	1	SPOFCHECK_NUM_COM_CUI	The number of common control unit interfaces

Table 913. Structure SPOFCHECK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
41	(29)	BITSTRING	1	SPOFCHECK_NUM_PSB_CUI	The number of possible control unit interfaces in common
42	(2A)	BITSTRING	2		Reserved
Switch Diagnostic Area Contains additional information regarding the common switch hardware components shared by all the online paths.					
44	(2C)	CHARACTER	224	SPOFCHECK_SWITCH_DIAG	Switch diagnostic area
44	(2C)	CHARACTER	30	SPOFCHECK_SD_PND	The physical switch's node descriptor dot qualified
74	(4A)	BITSTRING	1	SPOFCHECK_SD_COUNT	The total number of hardware components in common among the online paths.
75	(4B)	CHARACTER	1		Reserved
76	(4C)	CHARACTER	24	SPOFCHECK_SD_HWPART_NAME	The array of common hardware component names, obtained from the switch
268	(10C)	CHARACTER	16		Reserved
284	(11C)	CHARACTER	1	SPOFCHECKEXT(0)	Start of SPOF Check Extensions
The number of checks in a SPOFCheck					
284	(11C)	X'B'	0	SPOFCHECK_NUMBER	"11" There are 11 types of checks in a SPOFCheck

Table 914. Structure SPOFGROUPCHECK

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFGROUPCHECK	
Group Check mapping Checks for single points of failure					
0	(0)	BITSTRING	8	SPOFGROUPCHECK_MASK64	Mask of single points of failure in 64 bit form
0	(0)	BITSTRING	4	SPOFGROUPCHECK_32MASK1	Mask of single points of failure in 32 bit form
0	(0)	BITSTRING	2	SPOFGROUPCHECK_16MASK1	Mask of single points of failure in 16 bit form
0	(0)	BITSTRING	1	SPOFGROUPCHECK_8MASK1	Mask of single points failure in 8 bit form
Bit definitions:					
		1... ....		SPOFGROUPCHECK_SAMEDEVICE	"X'80'" Devices are the same device
		.1.. ....		SPOFGROUPCHECK_SHARELSS	"X'40'" Devices share a logical subsystem. This check has been discontinued, and as a result, this field will never be set ON.
		..1. ....		SPOFGROUPCHECK_SHAREPHYSU	"X'20'" Devices share a physical control unit
		...1 ....		SPOFGROUPCHECK_SHARESWITCH	"X'10'" All online paths of both devices go through one switch
		.... 1...		SPOFGROUPCHECK_HOSTCHPSPF	"X'08'" All chpids share a single point of failure, on the host side in both devices

Table 914. Structure SPOFGROUPCHECK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		SPOFGROUPCHECK_CUINTERSPF	"X'04'" All control unit interfaces share a single point of failure for both devices
		.... ..1.		SPOFGROUPCHECK_SWCMHDWCOMP	"X'02'" All online paths share one or more common switch hardware components
If the 'N' bits are on the check for single points of failure could not be done, due to check failure.					
8	(8)	BITSTRING	8	SPOFGROUPCHECK_NC_MASK64	Mask of single points of failure that couldn't be performed
8	(8)	BITSTRING	4	SPOFGROUPCHECK_NC_32MASK1	Mask of single points of failure in 32 bit form
8	(8)	BITSTRING	2	SPOFGROUPCHECK_NC_16MASK1	Mask of single points of failure in 16 bit form
8	(8)	BITSTRING	1	SPOFGROUPCHECK_NC_8MASK1	Mask of single points of failure in 8 bit form
Bit definitions:					
		1... ....		SPOFGROUPCHECK_NC_SAMEDEVICE	"X'80'" Devices are the same device
		.1.. ....		SPOFGROUPCHECK_NC_SHARELSS	"X'40'" Devices share a logical subsystem. This field will never be set ON due to the discontinuation of the LSS check.
		..1. ....		SPOFGROUPCHECK_NC_SHAREPHYSU	"X'20'" Devices share a physical control unit
		...1 ....		SPOFGROUPCHECK_NC_SHARESWITCH	"X'10'" All online paths of both devices go through one switch
		.... 1...		SPOFGROUPCHECK_NC_HOSTCHPSPF	"X'08'" All chpids share a single point of failure, on the host side in both devices
		.... .1..		SPOFGROUPCHECK_NC_CUINTERSPF	"X'04'" All control unit interfaces share a single point of failure for both devices
Validity flags					
16	(10)	BITSTRING	1	SPOFGROUPCHECK_FLAGS	Use Flags
Bit definitions:					
		1... ....		SPOFGROUPCHECK_CHP_DIAG_VLD	"X'80'" On if the CHP_Diag is valid
		.1.. ....		SPOFGROUPCHECK_CUI_DIAG_VLD	"X'40'" On if the CUI_Diag is valid
		..1. ....		SPOFGROUPCHECK_EXT_PRESENT	"X'20'" One or more SPOF check extensions are present with this SPOF group check
17	(11)	CHARACTER	3		Reserved
The CU interface numbers and compare channel components words					

Table 914. Structure SPOFGROUPCHECK (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	BITSTRING	12	SPOFGROUPCHECK_CHP_DIAG	Resulting host specific compare channel components result word
20	(14)	CHARACTER	12	SPOFGROUPCHECK_CHP_DIAG_CHAR	Resulting host specific compare channel components result word
32	(20)	BITSTRING	2	SPOFGROUPCHECK_CUI_DIAG	Resulting and of Attached Node Descriptor tags
32	(20)	BITSTRING	1	SPOFGROUPCHECK_NUM_COM_CUI	The number of common control unit interfaces
33	(21)	BITSTRING	1	SPOFGROUPCHECK_NUM_PSB_CUI	The number of possible control unit interfaces in common
34	(22)	BITSTRING	2		Reserved
Group Switch Diagnostic Area Contains additional information regarding the common switch hardware components shared by all the online paths.					
36	(24)	CHARACTER	224	SPOFGROUPCHECK_SWITCH_DIAG	Switch diagnostic area
36	(24)	CHARACTER	30	SPOFGROUPCHECK_SD_PND	The physical switch's node descriptor dot qualified
66	(42)	BITSTRING	1	SPOFGROUPCHECK_SD_COUNT	The total number of hardware components in common among the online paths.
67	(43)	CHARACTER	1		Reserved
68	(44)	CHARACTER	24	SPOFGROUPCHECK_SD_HWPART_NAME	The array of common hardware component names, obtained from the switch
260	(104)	CHARACTER	16		Reserved
276	(114)	CHARACTER	1	SPOFGROUPCHECKEXT(0)	SPOF Check Extension
The number of checks in a SPOFGroupCheck					
276	(114)	X'7'	0	SPOFGROUPCHECK_NUMBER	"7" There are 7 types of checks in a SPOFGroupCheck

Table 915. Structure SPOFCHK\_EXTENSION

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFCHK_EXTENSION	SPOF check extension
0	(0)	CHARACTER	8	SPOFCHKE_EYE	Extension eye catcher
8	(8)	BITSTRING	1	SPOFCHKE_ID	Extension identifier
9	(9)	BITSTRING	1	SPOFCHKE_FLAGS	Extension flags
Bit definitions:					
		1... ....		SPOFCHKE_VALID	"X'80'" Valid flag - when '1'b indicates this SPOF check extension is valid i.e. contains valid data - when '0'b indicates this SPOF check extension is invalid i.e. does not contain valid data



Table 915. Structure SPOFCHK\_EXTENSION (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1... ....		SPOFCHKE_LAST	"X'40'" Last flag - when '1'b indicates this SPOF check extension is the last SPOF check extension present in the given SPOF check or SPOF group check - when '0'b indicates this SPOF check extension is not the last SPOF check extension present in the given SPOF check or SPOF group check
10	(A)	CHARACTER	2		Reserved
12	(C)	SIGNED	2	SPOFCHKE_LENGTH	Length of this extension
14	(E)	CHARACTER	2		Reserved
16	(10)	CHARACTER	1	SPOFCHKE_DATA(0)	SPOF data associated with this extension
<p>SPOF Check Extension Control Unit Interface Area  Contains common component descriptor information as returned by the storage device.  The SPOF Check Extension Control Unit Interface area is identified by setting the SPOFChkE_id in the SPOFCheck_Extension to the constant SPOFChk_Ext_CUI_Id.  The number of descriptions present in the SPOFChk_Ext_CUI_Descriptions array can be up to four (4), however, the actual number is described in the SPOFCheck_Num_Com_CUI variable.</p>					
16	(10)	BITSTRING	1	SPOFCHK_EXT_CUI_AREA(0)	
16	(10)	CHARACTER	62	SPOFCHK_EXT_CUI_DESCRIPTIONS	An array of 4, 62 byte common component descriptions
SPOF Check Extension Constants					
16	(10)	X'D7D6C6'	0	SPOFCHK_EXT_EYE_0T03	"C'SPOF'" This is the first 4-byte segment of an 8-byte constant. Eye catcher for the SPOF check extension
16	(10)	X'C5E7E3'	0	SPOFCHK_EXT_EYE_4T07	"C'CEXT'" This is the second 4-byte segment of an 8-byte constant. Eye catcher for the SPOF check extension
16	(10)	X'1'	0	SPOFCHK_EXT_CUI_ID	"1" SPOF check extension control unit interface area identification

Table 916. Structure SPOFCHECK\_CHP\_DIAG\_MASK\_TYPE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SPOFCHECK_CHP_DIAG_MASK_TYPE	Define Component Bits in CHP_Diag area
0	(0)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE01	1st Byte
Bit definitions:					
		1... ....		SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT1	"X'80'" IGNORED
		.1... ....		SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT2	"X'40'" IGNORED
		..1. ....		SPOFCHECK_CHP_DIAG_MASK_BOOK	"X'20'" Processor Drawer
		...1 ....		SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT4	

Table 916. Structure SPOFCHECK\_CHP\_DIAG\_MASK\_TYPE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'10'" IGNORED
		.... 1...		SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT5	
					"X'08'" IGNORED
		.... .1..		SPOFCHECK_CHP_DIAG_MASK_FANOUT	
					"X'04'" Fanout
		.... ..1.		SPOFCHECK_CHP_DIAG_MASK_DOMAIN	
					"X'02'" I/O Domain
		.... ...1		SPOFCHECK_CHP_DIAG_MASK_CHANNEL	
					"X'01'" Channel Card
1	(1)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE02	2nd Byte
2	(2)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE03	3rd Byte
3	(3)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE04	4th Byte
4	(4)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE05	5th Byte
5	(5)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE06	6th Byte
6	(6)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE07	7th Byte
7	(7)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE08	8th Byte
8	(8)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE09	9th Byte
9	(9)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE10	10th Byte
10	(A)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE11	11th Byte
11	(B)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_BYTE12	12th Byte
12	(C)	CHARACTER	1	SPOFCHECK_CHP_DIAG_MASK_END(0)	Terminate Str

Table 917. Cross Reference for IOSDSPOF

Name	Offset	Hex Tag
SPOFAREA	0	
SPOFAREA_ENTRIESADDR	2C	
SPOFAREA_EYECATCH	0	
SPOFAREA_EYECATCHCONST_0T03	2C	D7D6C6
SPOFAREA_EYECATCHCONST_4T07	2C	D9C5C1
SPOFAREA_GROUPCHECKSADDR	28	
SPOFAREA_HDRLEN	9	
SPOFAREA_HEADER	0	

Table 917. Cross Reference for IOSDSPOF (continued)

Name	Offset	Hex Tag
SPOFAREA_LEN	C	
SPOFAREA_NUMENTRIES	10	
SPOFAREA_SUBPOOL	A	
SPOFAREA_SUMCHECKSADDR	24	
SPOFAREA_VERSION	8	
SPOFAREA_VERSIONCURRENT	2C	1
SPOFAREA_VERSIONNONE	2C	1
SPOFCHECK	0	
SPOFCHECK_CHP_DIAG	1C	
SPOFCHECK_CHP_DIAG_CHAR	1C	
SPOFCHECK_CHP_DIAG_MASK_BOOK	0	20
SPOFCHECK_CHP_DIAG_MASK_BYTE01	0	
SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT1	0	80
SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT2	0	40
SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT4	0	10
SPOFCHECK_CHP_DIAG_MASK_BYTE01_BIT5	0	8
SPOFCHECK_CHP_DIAG_MASK_BYTE02	1	
SPOFCHECK_CHP_DIAG_MASK_BYTE03	2	
SPOFCHECK_CHP_DIAG_MASK_BYTE04	3	
SPOFCHECK_CHP_DIAG_MASK_BYTE05	4	
SPOFCHECK_CHP_DIAG_MASK_BYTE06	5	
SPOFCHECK_CHP_DIAG_MASK_BYTE07	6	
SPOFCHECK_CHP_DIAG_MASK_BYTE08	7	
SPOFCHECK_CHP_DIAG_MASK_BYTE09	8	
SPOFCHECK_CHP_DIAG_MASK_BYTE10	9	
SPOFCHECK_CHP_DIAG_MASK_BYTE11	A	
SPOFCHECK_CHP_DIAG_MASK_BYTE12	B	
SPOFCHECK_CHP_DIAG_MASK_CHANNEL	0	1
SPOFCHECK_CHP_DIAG_MASK_DOMAIN	0	2
SPOFCHECK_CHP_DIAG_MASK_END	C	
SPOFCHECK_CHP_DIAG_MASK_FANOUT	0	4
SPOFCHECK_CHP_DIAG_MASK_TYPE	0	
SPOFCHECK_CHP_DIAG_VLD	10	20
SPOFCHECK_CHP_HWINFO_NAVAIL	10	4
SPOFCHECK_CUI_DIAG	28	
SPOFCHECK_CUI_DIAG_VLD	10	10
SPOFCHECK_CUI_HWINFO_NAVAIL	10	2
SPOFCHECK_CUINTERSPF	1	40
SPOFCHECK_DEVNCH_VALID	10	80

Table 917. Cross Reference for IOSDSPOF (continued)

Name	Offset	Hex Tag
SPOFCHECK_DEVNCHAR	11	
SPOFCHECK_EXT_PRESENT	10	8
SPOFCHECK_FLAGS	10	
SPOFCHECK_HOSTCHPSPF	1	80
SPOFCHECK_MASK64	0	
SPOFCHECK_NC_CUINTERSPF	9	40
SPOFCHECK_NC_HOSTCHPSPF	9	80
SPOFCHECK_NC_MASK64	8	
SPOFCHECK_NC_NOPATHS	8	20
SPOFCHECK_NC_NOPREFPATHS	8	4
SPOFCHECK_NC_NOTONLINE	8	40
SPOFCHECK_NC_ONEPATH	8	10
SPOFCHECK_NC_ONEPREFPATH	8	1
SPOFCHECK_NC_ONESWITCH	8	8
SPOFCHECK_NC_ONLYPREFPATHS	8	2
SPOFCHECK_NC_16MASK1	8	
SPOFCHECK_NC_32MASK1	8	
SPOFCHECK_NC_8MASK1	8	
SPOFCHECK_NC_8MASK2	9	
SPOFCHECK_NNOTFOUND	8	80
SPOFCHECK_NOPATHS	0	20
SPOFCHECK_NOPREFPATHS	0	4
SPOFCHECK_NOTFOUND	0	80
SPOFCHECK_NOTONLINE	0	40
SPOFCHECK_NUM_COM_CUI	28	
SPOFCHECK_NUM_PSB_CUI	29	
SPOFCHECK_NUMBER	11C	B
SPOFCHECK_ONEPATH	0	10
SPOFCHECK_ONEPREFPATH	0	1
SPOFCHECK_ONESWITCH	0	8
SPOFCHECK_ONLYPREFPATHS	0	2
SPOFCHECK_SD_COUNT	4A	
SPOFCHECK_SD_HWPART_NAME	4C	
SPOFCHECK_SD_PND	2C	
SPOFCHECK_SWCMHDWCOMP	1	20
SPOFCHECK_SWITCH_DIAG	2C	
SPOFCHECK_VOLSER	16	
SPOFCHECK_VOLSER_VALID	10	40
SPOFCHECK_16MASK1	0	

Table 917. Cross Reference for IOSDSPOF (continued)

Name	Offset	Hex Tag
SPOFCHECK_32MASK1	0	
SPOFCHECK_8MASK1	0	
SPOFCHECK_8MASK2	1	
SPOFCHECKEXT	11C	
SPOFCHK_EXT_CUI_AREA	10	
SPOFCHK_EXT_CUI_DESCRIPTIONS	10	
SPOFCHK_EXT_CUI_ID	10	1
SPOFCHK_EXT_EYE_0T03	10	D7D6C6
SPOFCHK_EXT_EYE_4T07	10	C5E7E3
SPOFCHK_EXTENSION	0	
SPOFCHKE_DATA	10	
SPOFCHKE_EYE	0	
SPOFCHKE_FLAGS	9	
SPOFCHKE_ID	8	
SPOFCHKE_LAST	9	40
SPOFCHKE_LENGTH	C	
SPOFCHKE_VALID	9	80
SPOFGROUPCHECK	0	
SPOFGROUPCHECK_CHP_DIAG	14	
SPOFGROUPCHECK_CHP_DIAG_CHAR	14	
SPOFGROUPCHECK_CHP_DIAG_VLD	10	80
SPOFGROUPCHECK_CUI_DIAG	20	
SPOFGROUPCHECK_CUI_DIAG_VLD	10	40
SPOFGROUPCHECK_CUINTERSPF	0	4
SPOFGROUPCHECK_EXT_PRESENT	10	20
SPOFGROUPCHECK_FLAGS	10	
SPOFGROUPCHECK_HOSTCHPSPF	0	8
SPOFGROUPCHECK_MASK64	0	
SPOFGROUPCHECK_NC_CUINTERSPF	8	4
SPOFGROUPCHECK_NC_HOSTCHPSPF	8	8
SPOFGROUPCHECK_NC_MASK64	8	
SPOFGROUPCHECK_NC_SAMEDEVICE	8	80
SPOFGROUPCHECK_NC_SHARELSS	8	40
SPOFGROUPCHECK_NC_SHAREPHYSCU	8	20
SPOFGROUPCHECK_NC_SHARESWITCH	8	10
SPOFGROUPCHECK_NC_16MASK1	8	
SPOFGROUPCHECK_NC_32MASK1	8	
SPOFGROUPCHECK_NC_8MASK1	8	
SPOFGROUPCHECK_NUM_COM_CUI	20	

Table 917. Cross Reference for IOSDSPOF (continued)

Name	Offset	Hex Tag
SPOFGROUPCHECK_NUM_PSB_CUI	21	
SPOFGROUPCHECK_NUMBER	114	7
SPOFGROUPCHECK_SAMEDEVICE	0	80
SPOFGROUPCHECK_SD_COUNT	42	
SPOFGROUPCHECK_SD_HWPART_NAME	44	
SPOFGROUPCHECK_SD_PND	24	
SPOFGROUPCHECK_SHARELSS	0	40
SPOFGROUPCHECK_SHAREPHYSU	0	20
SPOFGROUPCHECK_SHARESWITCH	0	10
SPOFGROUPCHECK_SWCMHDWCOMP	0	2
SPOFGROUPCHECK_SWITCH_DIAG	24	
SPOFGROUPCHECK_16MASK1	0	
SPOFGROUPCHECK_32MASK1	0	
SPOFGROUPCHECK_8MASK1	0	
SPOFGROUPCHECKEXT	114	

## IOSDSRWQ information

### IOSDSRWQ heading information

<b>Common name:</b>	Subchannel Recovery Word Queuing Element
<b>Macro ID:</b>	IOSDSRWQ
<b>DSECT name:</b>	SRWQ
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	SRWQ Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: n/a Auxiliary Storage: n/a Subpool: 245 Key: 0 Residency: Above 16MB line
<b>Size:</b>	See assembler listing
<b>Created by:</b>	IOSRACRW when obtaining the hardware pending CRWs. By IOS modules when they create software CRWs.
<b>Pointed to by:</b>	UCBSCHRC field of the UCB data area
<b>Serialization:</b>	For Subchannel Recovery, the UCB lock.

**Function:** The SRWQ contains all the data and pointers needed by IOS modules to perform Subchannel recovery

## IOSDSRWQ mapping

Table 918. Structure SRWQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	88	SRWQ	
0	(0)	CHARACTER	36	SRWQFLD1	
0	(0)	CHARACTER	4	SRWQID	Acronym ('SRWQ')
4	(4)	ADDRESS	4	SRWQNEXT	Pointer to next SRWQ
8	(8)	CHARACTER	4	SRWQCRW	CRW
12	(C)	SIGNED	4	SRWQSQNO	Sequence number of this CRW
16	(10)	SIGNED	4	SRWQASNO	Associated sequence number
20	(14)	CHARACTER	4	SRWQDATA	Additional data - module usage
24	(18)	BITSTRING	1	SRWQFLG1	Flag byte
	1... ..		*		Reserved
	.1.. ..			SRWQSOFT	If ON, the CRW in SRWQCRW is a software generated CRW. The ERC (CRWERC) field is defined by the constants in the IHACRW mapping macro
	..1. ....			SRWQHUNG	If ON, the SRWQDATA field contains a related CRW.
	...1 ....			SRWQSCBV	If ON, the SRWQSCIB field contains valid SCHIB data.
	.... 1...			SRWQECBA	If ON, the SRWQFECB field contains an ECB address.
	.... .1..			SRWQSCHW	If ON, a subchannel recovery process, described by this SRWQ, is waiting for the completion of channel path recovery.
	.... ..1.			SRWQNOMSG164	Don't issue message IOS164I
	.... ...1			SRWQCMPL	If ON, this SRWQ has been processed
25	(19)	UNSIGNED	1	SRWQSP	Subpool of SRWQE
26	(1A)	SIGNED	2	SRWQLENG	Length of SRWQE
28	(1C)	BITSTRING	1	SRWQFLG2	Flag byte
	1... ..			SRWQNCON	State of UCBNOCON
	.1.. ..			SRWQMSG	Message must be issued for software CRW
	..1. ....			SRWQTHRD	If the SRWQ element represents a software generated CRW, this bit indicates that the CRW should be treated like a hardware generated CRW.
	...1 ....			SRWQ_PIN_UCBLOOK	UCB pinned by UCBLOOK service SRWQPIN field valid
	.... 1...			SRWQ_PIN_UCBSCAN	UCB pinned by UCBSCAN service
	.... .1..			SRWQEARLYUCBDEFER	UCBDEFER set early by IOSRACRW to prevent posting of I/O during Hyperswappable events. IOSRSCH is required to properly "defer box" the device.
	.... ..1.			SRWQ_CONVIPI	IPM or IPR CRW was converted to an IPI CRW
	.... ...1		*		Reserved

Table 918. Structure SRWQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
29	(1D)	UNSIGNED	1	SRWQITP	For converted/reprocessed SRWQs, this identifies the prior trace point that redrove processing
30	(1E)	ADDRESS	2	SRWQCP	Processor address CRW retrieved on
32	(20)	CHARACTER	4	SRWQFREE	Free-SRWQ chain
36	(24)	CHARACTER	28	SRWQFLD2	Recovery dependent data field
36	(24)	CHARACTER	28	SRWQSCIB	SCHIB data for subchannel recovery
64	(40)	CHARACTER	4	SRWQFECB	ECB address
68	(44)	ADDRESS	4	SRWQASCB	ASCB for ECB (zero if masters address space is to be posted)
72	(48)	CHARACTER	8	SRWQPIN	Pin token for UCB - valid when SRWQ_Pin_UCBLOOK set
80	(50)	CHARACTER	8	SRWQSTKN	STOKEN for software CRWs that require cross memory post
88	(58)	CHARACTER	0	*	Force doubleword length

Table 919. Cross Reference for IOSDSRWQ

Name	Offset	Hex Tag
SRWQ	0	
SRWQ_CONVIPI	1C	02
SRWQ_PIN_UCBLOOK	1C	10
SRWQ_PIN_UCBSCAN	1C	08
SRWQASCB	44	
SRWQASNO	10	
SRWQCMPL	18	01
SRWQCP	1E	
SRWQCRW	8	
SRWQDATA	14	
SRWQEARLYUCBDEFER	1C	04
SRWQECBA	18	08
SRWQFECB	40	
SRWQFLD1	0	
SRWQFLD2	24	
SRWQFLG1	18	
SRWQFLG2	1C	
SRWQFREE	20	
SRWQHUNG	18	20
SRWQID	0	
SRWQITP	1D	
SRWQLENG	1A	
SRWQMSG	1C	40
SRWQNCON	1C	80
SRWQNEXT	4	



Table 919. Cross Reference for IOSDSRWQ (continued)

Name	Offset	Hex Tag
SRWQNOMSG164	18	02
SRWQPIN	48	
SRWQSCBV	18	10
SRWQSCHW	18	04
SRWQSCIB	24	
SRWQSOFT	18	40
SRWQSP	19	
SRWQSQNO	C	
SRWQSTKN	50	
SRWQTHRD	1C	20

## IOSDSWAP information

### IOSDSWAP programming interface information

IOSDSWAP is a programming interface.

### IOSDSWAP heading information

<b>Common name:</b>	IOS Swap Parameter List
<b>Macro ID:</b>	IOSDSWAP
<b>DSECT name:</b>	SWAP
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	SWAP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: Any fixed storage subpool Key: 0 Residency: Fixed storage
<b>Size:</b>	One SWAP DSECT plus one SWAPLIST DSECT per device pair Swap -- X'0010' bytes SwapList -- X'0010' bytes
<b>Created by:</b>	Callers of IOSVSWAP and users of UCBSWAP
<b>Pointed to by:</b>	n/a
<b>Serialization:</b>	None

**Function:**

This mapping is used as input to IOSVSWAP and UCBSWAP in order to allow a list of device pairs to be swapped.

**Notes:**

- In order to distinguish the use of this mapping vs. the register only interface to IOSVSWAP, the high order bit of register 1, which contains the address of the Swap Parameter List, must be set to 1 when calling IOSVSWAP (i.e., Reg1 = the Swap Parameter List address OR'd with x'80000000).
- UCBSWAP is for IOS use only and is not part of the programming interface.

## IOSDSWAP mapping

Table 920. Structure SWAP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SWAP	SWAP parameter list mapping
0	(0)	CHARACTER	4	SWAPID	Swap identifier "SWAP"
4	(4)	BITSTRING	1	SWAPVERSION	Version number
5	(5)	CHARACTER	1	SWAPFLAGS	Flags
Bit definitions:					
		1... ....		SWAPBYPASSALLOCTABLES	"X'80'" Indicates that IOSVSWAP should bypass swapping the allocation tables
		.1... ....		SWAPBYPASSQUEUEDMSCHCHECKS	"X'40'" Indicates that IOSVSWAP should bypass queued MSCH checking for all devices in the SwapList. This avoids a queued modify from causing IOSVSWAP to fail
		..1. ....		SWAPBYPASSMIDAWCHECKS	"X'20'" Indicates that IOSVSWAP should bypass MIDAW consistency checking for all devices in the SwapList. Note: This bit is for IOS use only
6	(6)	CHARACTER	2		Available
8	(8)	SIGNED	4	SWAPLISTCOUNTER	Count of device pairs to swap
12	(C)	ADDRESS	4	SWAPLISTADDRESS	Address of device pair list
16	(10)	CHARACTER	1	SWAPEND(0)	End of table
Constants - Header Information					
16	(10)	X'0'	0	SWAP_VERSION	"0" Current version constant
16	(10)	X'E6C1D7'	0	SWAP_IDENTIFER	"C'SWAP'" Swap Id
16	(10)	X'10'	0	SWAP_LEN	"*-Swap"

Table 921. Structure SWAPLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SWAPLIST	Swap device pair list
0	(0)	ADDRESS	4	SWAPFROMUCB	From device actual UCB addr
4	(4)	ADDRESS	4	SWAPTOUNCB	To device actual UCB addr
8	(8)	CHARACTER	4	SWAPWORKAREA	Workarea for caller
12	(C)	CHARACTER	4	SWAPENTRYRESULT	Results
12	(C)	SIGNED	2	SWAPENTRYRSN	Reason code for device pair

Table 921. Structure SWAPLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E)	SIGNED	2	SWAPENTRYRC	Return code for device pair
Constants - IOSVSWAP Return Codes					
14	(E)	X'0'	0	SWAP_RCSUCCESS	"0" Swap successful
14	(E)	X'4'	0	SWAP_RCFAILED	"4" Swap failed
Constants - IOSVSWAP Reason Codes					
14	(E)	X'2'	0	SWAP_RSNFROMDISABLEFAILED1	"2" The attempt to disable the FROM device failed. This reason code is used when the device is not boxed.
14	(E)	X'3'	0	SWAP_RSNFROMDISABLEFAILED2	"3" The attempt to disable the FROM device failed. This reason code is used when the device is boxed and either disabled or hot
14	(E)	X'4'	0	SWAP_RSNTODISABLEFAILED	"4" The attempt to disable the T0 device failed.
14	(E)	X'5'	0	SWAP_RSNTODISABLED	"5" The T0 device was already in the disabled state.
14	(E)	X'6'	0	SWAP_RSNFROMHASQUEUEDMSCH	"6" The FROM device had a modify subchannel request queued
14	(E)	X'7'	0	SWAP_RSNTOHASQUEUEDMSCH	"7" The T0 device had a modify subchannel request queued
14	(E)	X'8'	0	SWAP_RSNMIDAWINCOMPATIBLE	"8" The MIDAW capabilities of the FROM and T0 device are different
14	(E)	X'9'	0	SWAP_RSNLUTENTRYNOTFOUND	"9" The ULUT entry was not successfully found for one or both of the devices being swapped
14	(E)	X'10'	0	SWAPLIST_LEN	"*-SwapList"

Table 922. Cross Reference for IOSDSWAP

Name	Offset	Hex Tag
SWAP	0	
SWAP_IDENTIFER	10	E6C1D7
SWAP_LEN	10	10
SWAP_RCFAILED	E	4
SWAP_RCSUCCESS	E	0
SWAP_RSNFROMDISABLEFAILED1	E	2
SWAP_RSNFROMDISABLEFAILED2	E	3
SWAP_RSNFROMHASQUEUEDMSCH	E	6
SWAP_RSNMIDAWINCOMPATIBLE	E	8
SWAP_RSNTODISABLED	E	5
SWAP_RSNTODISABLEFAILED	E	4
SWAP_RSNTOHASQUEUEDMSCH	E	7
SWAP_RSNLUTENTRYNOTFOUND	E	9
SWAP_VERSION	10	0
SWAPBYPASSALLOCTABLES	5	80
SWAPBYPASSMIDAWCHECKS	5	20

Table 922. Cross Reference for IOSDSWAP (continued)

Name	Offset	Hex Tag
SWAPBYPASSQUEUEDMSCHCHECKS	5	40
SWAPEND	10	
SWAPENTRYRC	E	
SWAPENTRYRESULT	C	
SWAPENTRYRSN	C	
SWAPFLAGS	5	
SWAPFROMUCB	0	
SWAPID	0	
SWAPLIST	0	
SWAPLIST_LEN	E	10
SWAPLISTADDRESS	C	
SWAPLISTCOUNTER	8	
SWAPTOUCB	4	
SWAPVERSION	4	
SWAPWORKAREA	8	

## IOSDSWTD information

### IOSDSWTD programming interface information

IOSDSWTD is a programming interface.

### IOSDSWTD heading information

<b>Common name:</b>	Switch Data Area mapping
<b>Macro ID:</b>	IOSDSWTD
<b>DSECT name:</b>	SWITCH_DATA_AREA
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	none
<b>Storage attributes:</b>	Subpool: caller-provided Key: caller-provided Residency: caller-provided
<b>Size:</b>	52 bytes for SWITCH_DATA_AREA 46 bytes + (2 bytes * number of CUs) for each SWITCH_Port_Record
<b>Created by:</b>	IOSVIOSW
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	Maps the output area associated with the IOSWITCH service.

## IOSDSWTD mapping

Table 923. Structure

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0		

Table 924. Structure SWITCH\_DATA\_AREA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SWITCH_DATA_AREA	Switch Data Area
0	(0)	CHARACTER	4	SWITCH_ID	Eye catcher
4	(4)	SIGNED	1	SWITCH_VERSION	Version number
	.... ..11			SWITCH_CURRVRSN	"X'03'" Current Version
	.... ...1			SWITCH_VRSNONE	"X'01'" Version 1
	.... ..1.			SWITCH_VRSNTWO	"X'02'" Version 2 Supports the two byte implemented and installed port counts.
	.... ..11			SWITCH_VRSNTHREE	"X'03'" Version 3 Supports switch_physical_nd
5	(5)	SIGNED	1	SWITCH_OFFSET_1ST_PORT	Offset to first port record
6	(6)	SIGNED	2	SWITCH_DEVICE	Switch device number
8	(8)	SIGNED	1	SWITCH_TOTAL_IMPLEMENTED	Total number of implemented ports Note: Field maintained for legacy applications. The two byte version of this field should be used.
9	(9)	SIGNED	1	SWITCH_TOTAL_INSTALLED	Total number of installed ports Note: Field maintained for legacy applications. The two byte version of this field should be used.
10	(A)	CHARACTER	1	SWITCH_FLAGS	Flags
	1... ....			SWITCH_OFFLINE	"X'80'" On = offline switch
	.1... ....			SWITCH_RPSN_VALID	"X'40'" On = relative physical switch number valid
11	(B)	SIGNED	1	SWITCH_RPSN	Relative physical switch number
12	(C)	CHARACTER	32	SWITCH_NODE_DESC	Node descriptor
44	(2C)	CHARACTER	32	SWITCH_TOKEN_NED	Token Ned
76	(4C)	SIGNED	2	SWITCH_TOTAL_IMPLEMENTED_2BYTE	Two byte version of the count of total implemented ports.
78	(4E)	SIGNED	2	SWITCH_TOTAL_INSTALLED_2BYTE	Two byte version of the count of total installed ports.
80	(50)	CHARACTER	4		Reserved
84	(54)	CHARACTER	32	SWITCH_PHYSICAL_ND	Physical node descriptor
84	(54)	X'74'	0	SWITCH_LEN	"*-SWITCH_DATA_AREA"

Table 925. Structure SWITCH\_PORT\_RECORD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SWITCH_PORT_RECORD	Port record
0	(0)	SIGNED	2	SWITCH_PORT_OFFSET_NEXT	Offset to next port record
2	(2)	SIGNED	1	SWITCH_PORT_ADDRESS	Logical port address
3	(3)	SIGNED	1	SWITCH_PORT_NUMBER	Port number
4	(4)	CHARACTER	1	SWITCH_PORT_FLAGS_1	Port flags set 1

Table 925. Structure SWITCH\_PORT\_RECORD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		SWITCH_PORT_INSTALLED	"X'80'" On = port installed
		.1.. ....		SWITCH_PORT_COMMAND_OFFLINE	"X'40'" On = offline to DCM by command
		..1. ....		SWITCH_PORT_SYSTEM_OFFLINE	"X'20'" On = offline to DCM by system
		...1 ....		SWITCH_PORT_STATE_OFFLINE	"X'10'" On = offline to DCM by port state
		.... 1...		SWITCH_PORT_DCM_INELIGIBLE	"X'08'" On = ineligible for use by DCM
		.... .1..		SWITCH_PORT_CHANNEL	"X'04'" On = attached to channel
		.... ..1.		SWITCH_PORT_CU	"X'02'" On = attached to CUs
		.... ...1		SWITCH_PORT_UNKNOWN	"X'01'" On = neither CHPID or CU(s)
5	(5)	CHARACTER	1	SWITCH_PORT_FLAGS_2	Port flags set 2
		1... ....		SWITCH_PORT_SYSTEM_CHANNEL	"X'80'" On = channel is known to caller's system
		1... ....		SWITCH_PORT_MACHINE_CHANNEL	"X'80'" Old name for bit
		.1.. ....		SWITCH_E_PORT	"X'40'" On = port is an E_PORT and attached device is a switch
6	(6)	CHARACTER	4		Reserved
10	(A)	SIGNED	2	SWITCH_PORT_PATH_COUNT	Number of CHPIDs connected
12	(C)	SIGNED	4	SWITCH_PORT_TIME_STAMP	Destination port busy time stamp
16	(10)	CHARACTER	4	SWITCH_PORT_DESC	Port descriptor
20	(14)	CHARACTER	32	SWITCH_PORT_PDCM	Prohibit Dynamic Connectivity Mask
52	(34)	CHARACTER	32	SWITCH_PORT_ATT_ND	Attached node descriptor
84	(54)	SIGNED	1	SWITCH_PORT_CHPID	CHPID number
85	(55)	SIGNED	1	SWITCH_PORT_CU_COUNT	Number of CU entries
86	(56)	SIGNED	2	SWITCH_PORT_CU_#	CU number array entry

Table 926. Cross Reference for IOSDSWTD

Name	Offset	Hex Tag
SWITCH_CURRVRSN	4	3
SWITCH_DATA_AREA	0	
SWITCH_DEVICE	6	
SWITCH_E_PORT	5	40
SWITCH_FLAGS	A	
SWITCH_ID	0	
SWITCH_LEN	54	74
SWITCH_NODE_DESC	C	
SWITCH_OFFLINE	A	80
SWITCH_OFFSET_1ST_PORT	5	
SWITCH_PHYSICAL_ND	54	
SWITCH_PORT_ADDRESS	2	
SWITCH_PORT_ATT_ND	34	
SWITCH_PORT_CHANNEL	4	4

Table 926. Cross Reference for IOSDSWTD (continued)

Name	Offset	Hex Tag
SWITCH_PORT_CHPID	54	
SWITCH_PORT_COMMAND_OFFLINE	4	40
SWITCH_PORT_CU	4	2
SWITCH_PORT_CU_#	56	
SWITCH_PORT_CU_COUNT	55	
SWITCH_PORT_DCM_INELIGIBLE	4	8
SWITCH_PORT_DESC	10	
SWITCH_PORT_FLAGS_1	4	
SWITCH_PORT_FLAGS_2	5	
SWITCH_PORT_INSTALLED	4	80
SWITCH_PORT_MACHINE_CHANNEL	5	80
SWITCH_PORT_NUMBER	3	
SWITCH_PORT_OFFSET_NEXT	0	
SWITCH_PORT_PATH_COUNT	A	
SWITCH_PORT_PDCM	14	
SWITCH_PORT_RECORD	0	
SWITCH_PORT_STATE_OFFLINE	4	10
SWITCH_PORT_SYSTEM_CHANNEL	5	80
SWITCH_PORT_SYSTEM_OFFLINE	4	20
SWITCH_PORT_TIME_STAMP	C	
SWITCH_PORT_UNKNOWN	4	1
SWITCH_RPSN	B	
SWITCH_RPSN_VALID	A	40
SWITCH_TOKEN_NED	2C	
SWITCH_TOTAL_IMPLEMENTED	8	
SWITCH_TOTAL_IMPLEMENTED_2BYTE	4C	
SWITCH_TOTAL_INSTALLED	9	
SWITCH_TOTAL_INSTALLED_2BYTE	4E	
SWITCH_VERSION	4	
SWITCH_VRSNONE	4	1
SWITCH_VRSNTHREE	4	3
SWITCH_VRSNTWO	4	2

## IOSDTCCB information

### IOSDTCCB programming interface information

IOSDTCCB is a programming interface.

## IOSDTCCB heading information

<b>Common name:</b>	Transport Command Control Block
<b>Macro ID:</b>	IOSDTCCB
<b>DSECT name:</b>	TCAH, DCW, TCAT
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: Yes Auxiliary Storage: N/A Subpool: Any Key: Any Residency: Below 2G in virtual, above 2G in real
<b>Size:</b>	16 Bytes for TCAH 8 bytes for DCW 8 bytes for TCAT
<b>Created by:</b>	User
<b>Pointed to by:</b>	TCWTCCBAddr in IOSDTCW (real address) TIDAW0_Addr in IOSDTCW (real address)
<b>Serialization:</b>	None
<b>Function:</b>	<p>IOSDTCCB maps the Transport Command Control which contain the commands to be transported to the device for execution. The TCCB contains the following sections:</p> <ul style="list-style-type: none"><li>-- Transport Command Area Header (TCAH) - Contains information about the TCA and the operations described within.</li><li>-- Transport Command Area (TCA) - Contains one to 30 Device Command Words (DCWs) that specify the commands to be executed. Each DCW contains the following information<ul style="list-style-type: none"><li>-- Command code</li><li>-- Flags to indicate command chaining etc.</li><li>-- The length of the control data for the command, if any</li><li>-- The length of the data to be read or written</li></ul></li></ul> <p>If the command requires control data (e.g., define extent or locate record parameter data), the control data immediately follows the DCW. If the control data is not a multiple of 4, pad bytes must be added to properly align the next DCW or the TCA trailer on a word boundary. The total size of the DCWs plus control data cannot exceed 240 bytes. The need for control data reduces the number of DCWs that may be contained in the TCA.</p> <li>-- Transport Command Area Trailer (TCAT) - Contains the transport count which specifies the count of data bytes to be transferred.</li>

## IOSDTCCB mapping

Table 927. Structure TCAH

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCAH	Transport Command Area Header
0	(0)	CHARACTER	4	TCAH_WORD0(0)	Word 0



Table 927. Structure TCAH (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	1	TCAH_FORMAT	Format control
1	(1)	CHARACTER	3	TCAH_W0RSVD	Reserved
4	(4)	CHARACTER	4	TCAH_WORD1(0)	Word 1
4	(4)	CHARACTER	3	TCAH_W1RSVD	Reserved
7	(7)	BITSTRING	1	TCAH_TCAL	This value is the length of the TCA in bytes (TCA = DCWs + control data + pad bytes) plus 12
8	(8)	CHARACTER	4	TCAH_WORD2(0)	Word 2
8	(8)	BITSTRING	2	TCAH_SERVACT	Device dependent service action code
10	(A)	CHARACTER	1	TCAH_W2RSVD	Reserved
11	(B)	BITSTRING	1	TCAH_PRIORITY	Priority - must be set to zero by the builder of the channel program
12	(C)	CHARACTER	4	TCAH_WORD3(0)	Word 3
12	(C)	CHARACTER	4	TCAH_W3RSVD	Reserved
16	(10)	CHARACTER	1	TCAH_END(0)	End of TCA header
Constants for TCAH_Format					
	.111 1111			TCAH_FORMAT_7F	"X'7F'" Only format allowed
Constants for TCAH_ServAct					
16	(10)	BITSTRING	0	TCAH_SERVACT_1FFE	"X'1FFE'" Device dependent service action code
16	(10)	BITSTRING	0	TCAH_SERVACT_1FFF	"X'1FFF'" Device dependent service action code
16	(10)	BITSTRING	0	TCAH_SERVACT_INTG	"X'1FFF'" Service action code used for interrogate
16	(10)	X'10'	0	TCAH_LEN	"*-TCAH"

Table 928. Structure DCW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DCW	Device Command Word
0	(0)	CHARACTER	4	DCW_WORD0(0)	DCW word zero
0	(0)	BITSTRING	1	DCW_CMD	Command code
1	(1)	BITSTRING	1	DCW_FLAGS(0)	Flags
	1... ....			DCW_FBIT0_RSVD	"X'80'" Reserved
	.1.. ....			DCW_CMDCHAIN	"X'40'" Command chain to the next DCW
	..1. ....			DCW_SLI	"X'20'" Suppress length indication
	...1 1111			DCW_FBIT37_RSVD	"X'1F'" Reserved
2	(2)	CHARACTER	1	DCW_W0B2RSVD	Reserved
3	(3)	BITSTRING	1	DCW_CDCOUNT	Control data count
4	(4)	SIGNED	4	DCW_COUNT	Count of read or write bytes
8	(8)	CHARACTER	1	DCW_END(0)	End of DCW
8	(8)	CHARACTER	1	DCW_CONTROL_DATA(0)	Start of control data (if any)
	.1.1 ....			DCW_CMD_TCAX	"X'50'" Transfer-TCA-extension (TCAX) command code
	.11. ....			DCW_CMD_TCOB	"X'60'" Transfer-CBC-offset-block (TCOB) command code
8	(8)	X'8'	0	DCW_LEN	"*-DCW"

Table 929. Structure TCAT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCAT	Transport Command Area Trailer
0	(0)	CHARACTER	4	TCAT_CHANUSE	Reserved for use by channel
4	(4)	SIGNED	4	TCAT_TRANSPORT_COUNT	Count of data bytes transferred
8	(8)	CHARACTER	1	TCAT_END(0)	End of TCA trailer
8	(8)	X'8'	0	TCAT_LEN	"*-TCAT"

Table 930. Structure TCATB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCATB	Transport Command Area Trailer
0	(0)	CHARACTER	4	TCATB_CHANUSE	Reserved for use by channel
4	(4)	SIGNED	4	TCATB_WRITE_COUNT	Count of write data bytes transferred
8	(8)	SIGNED	4	TCATB_READ_COUNT	Count of read data bytes transferred
12	(C)	CHARACTER	1	TCATB_END(0)	End of TCATB
12	(C)	X'C'	0	TCATB_LEN	"*-TCATB"

Table 931. Cross Reference for IOSDTCCB

Name	Offset	Hex Tag
DCW	0	
DCW_CDCCOUNT	3	
DCW_CMD	0	
DCW_CMD_TCAX	8	50
DCW_CMD_TCOB	8	60
DCW_CMDCHAIN	1	40
DCW_CONTROL_DATA	8	
DCW_COUNT	4	
DCW_END	8	
DCW_FBIT0_RSVD	1	80
DCW_FBIT37_RSVD	1	1F
DCW_FLAGS	1	
DCW_LEN	8	8
DCW_SLI	1	20
DCW_WORD0	0	
DCW_W0B2RSVD	2	
TCAH	0	
TCAH_END	10	
TCAH_FORMAT	0	
TCAH_FORMAT_7F	10	7F
TCAH_LEN	10	10
TCAH_PRIORITY	B	
TCAH_SERVACT	8	
TCAH_SERVACT_INTG	10	1FFF

Table 931. Cross Reference for IOSDTCCB (continued)

Name	Offset	Hex Tag
TCAH_SERVACT_1FFE	10	1FFE
TCAH_SERVACT_1FFF	10	1FFF
TCAH_TCAL	7	
TCAH_WORD0	0	
TCAH_WORD1	4	
TCAH_WORD2	8	
TCAH_WORD3	C	
TCAH_W0RSVD	1	
TCAH_W1RSVD	4	
TCAH_W2RSVD	A	
TCAH_W3RSVD	C	
TCAT	0	
TCAT_CHANUSE	0	
TCAT_END	8	
TCAT_LEN	8	8
TCAT_TRANSPORT_COUNT	4	
TCATB	0	
TCATB_CHANUSE	0	
TCATB_END	C	
TCATB_LEN	C	C
TCATB_READ_COUNT	8	
TCATB_WRITE_COUNT	4	

## IOSDTCW information

### IOSDTCW programming interface information

IOSDTCW is a programming interface.

### IOSDTCW heading information

<b>Common name:</b>	Transport Control Word
<b>Macro ID:</b>	IOSDTCW
<b>DSECT name:</b>	TCW and TIDAW
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: Yes Auxiliary Storage: N/A Subpool: Any Key: Any Residency: Below 2G in virtual and real storage

**Size:** 64 Bytes for TCW,  
16 bytes for TIDAW

**Created by:** User

**Pointed to by:** TCW Pointers:  
IOSRST in IECDIOSB (real address)  
IOSVST in IECDIOSB (virtual address)  
IOSTCWAD in IECDIOSB (real or virtual address)  
ORBCPA in IHAORB (real address)  
IRBTCWAD in IHAIRB (real address)  
TCWInterrogateAddr in IOSDTCW (real address)  
TIDAW Pointers:  
TCWTCCBAddr in IOSDTCW (real address)  
TCWInputAddr in IOSDTCW (real address)  
TCWOutputAddr in IOSDTCW (real address)  
TCWOutputAddr in IOSDTCW (real address)  
TIDAW0\_Addr in IOSDTCW (real address)

**Serialization:** None

**Function:** IOSDTCW maps the Transport Control Word (TCW) which contains all of the information needed by the channel to drive an FCX I/O operation. It includes the following information:  
-- A pointer to a Transport Command Control Block (TCCB) that contains the commands to be executed. See macro IOSDTCCB.  
-- For write requests, a pointer to a data buffer or a list of data buffers (see TIDAL description below) that contain information that is transferred to the device.  
-- For read requests, a pointer to a data buffer or a list of data buffers (see TIDAL description below) that will contain information that is transferred from the device.  
-- A pointer to a Transport Status Block (TSB) that contains additional completion status over and above the status information stored in the IRB. See macro IOSDTSB.  
The TCW is built by the I/O driver or its callers and passed to IOS in the IOSB. The first TCW is always copied to the IOQ by the device dependent STARTIO exit. This allows the exit to modify the channel program and also allows IOS to assign a Transport Status Block (TSB).  
This macro also contains the mapping for the Transport Indirect Address Word (TIDAW). The TIDAW allows the TCCB and read/write data to be scattered in storage. The TCW points to an area of storage called a TIDAL list or TIDAL. Each quadword in the list is a TIDAW which points to either an area of storage or another TIDAL.

## IOSDTCW mapping

Table 932. Structure TCW

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCW	Transport Control Word
0	(0)	CHARACTER	4	TCWORD0(0)	Word 0
0	(0)	BITSTRING	1	TCWORD0BYTE0(0)	Word 0, byte 0
		11.. ....		TCWFORMAT	"X'C0'" TCW format
		..11 1111		TCWFORMATRSD1	"X'3F'" Reserved, zeroes
1	(1)	CHARACTER	3	TCWFLAGS(0)	Flags
1	(1)	BITSTRING	1	TCWFLAG1(0)	Flag one

Table 932. Structure TCW (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		TCWRSVD1	"X'80'" Reserved
		.1.. ....		TCWRSVD2	"X'40'" Reserved
		..1. ....		TCWRSVD3	"X'20'" Reserved
		...1 ....		TCWRSVD4	"X'10'" Reserved
		.... 1...		TCWRSVD5	"X'08'" Reserved
		.... .1..		TCWINPUT@TIDAL	"X'04'" The input address in TCWInputAddr points to a TIDAL. Otherwise, it points to data.
		.... ..1.		TCWTCCB@TIDAL	"X'02'" The TCCB address in TCWTCCBAddr points to a TIDAL. Otherwise, it points to a TCCB.
		.... ...1		TCWOUTPUT@TIDAL	"X'01'" The output address in TCWOutputAddr points to a TIDAL. Otherwise, it points to data.
2	(2)	BITSTRING	1	TCWFLAG2(0)	Flag two
		11.. ....		TCWTIDAWFORMAT	"X'C0'" The format of the TIDAW
		..1. ....		TCWTSRQB	"X'20'" TSRQB is designated
		...1 1111		TCWRSVD6	"X'1F'" Reserved
3	(3)	BITSTRING	1	TCWFLAG3(0)	Flag three
3	(3)	BITSTRING	1	TCWRSVD7	Reserved
4	(4)	CHARACTER	4	TCWORD1(0)	Word 1
4	(4)	CHARACTER	1	TCWRSVD8	Reserved
5	(5)	BITSTRING	1	TCWTCCBLRW(0)	TCCB length and read and write bits
		1111 11..		TCWTCCBL	"X'FC'" TCCB length - The length of the TCCB in words minus 5. That is, this length includes the entire TCCB except for the TCA header and the last word of the TCA trailer (5 words total).
		.... ..1.		TCWREAD	"X'02'" Data is transferred from the device to storage
		.... ...1		TCWWRITE	"X'01'" Data is transferred from storage to the device
6	(6)	CHARACTER	2	TCWRSVD9	Reserved
8	(8)	ADDRESS	8	TCWOUTPUTADDR	Words 2 & 3 - output data address or TIDAL
16	(10)	ADDRESS	8	TCWINPUTADDR	Words 4 & 5 - input data data or TIDAL
24	(18)	ADDRESS	8	TCWTSBADDR	Words 6 & 7 - Transport Status Block address. This field is reserved for IOS use and must be set to zero by the builder of the channel program.
32	(20)	ADDRESS	8	TCWTCCBADDR	Words 8 & 9 - Transport Command Control Block (TCCB) address or TIDAL. See macro IOSDTCCB.
40	(28)	SIGNED	4	TCWOUTPUTBYTECOUNT	Word 10 - Output data byte count
44	(2C)	SIGNED	4	TCWINPUTBYTECOUNT	Word 11 - Input data byte count
48	(30)	CHARACTER	4	TCWORD12	Word 12 - Reserved
52	(34)	CHARACTER	4	TCWORD13	Word 13 - Reserved
56	(38)	CHARACTER	4	TCWORD14	Word 14 - Reserved
60	(3C)	ADDRESS	4	TCWINTERROGATEADDR	Word 15 - Interrogate TCW address. Reserved for IOS use only. Must be set to zero by the builder of the channel program.

Table 932. Structure TCW (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Constants for TCWFormat					
	.... ....			TCWFORMAT_0	"B'00000000'" Format 0 TCW
	.1.. ....			TCWFORMAT_1	"B'01000000'" Reserved for future use
	1... ....			TCWFORMAT_2	"B'10000000'" Reserved for future use
	11.. ....			TCWFORMAT_3	"B'11000000'" Reserved for future use
Constants for TCWTIDAWFormat					
	.... ....			TCWTIDAWFORMAT_0	"B'00000000'" Format 0 TIDAW
	.1.. ....			TCWTIDAWFORMAT_1	"B'01000000'" Reserved for future use
	1... ....			TCWTIDAWFORMAT_2	"B'10000000'" Reserved for future use
	11.. ....			TCWTIDAWFORMAT_3	"B'11000000'" Reserved for future use
60	(3C) X'40'		0	TCW_LEN	"*-TCW"

Table 933. Structure TIDAW0

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TIDAW0	Format 0 TIDAW
0	(0)	BITSTRING	1	TIDAW0_FLAGS(0)	Flags
	1... ....			TIDAW0_LAST	"X'80'" This is the last TIDAW for a TCW
	.1.. ....			TIDAW0_SKIP	"X'40'" Skip the transfer of information to main storage during a read, sense-id, or sense operation
	..1. ....			TIDAW0_DTINT	"X'20'" Data transfer interruption control
	...1 ....			TIDAW0_TTIC	"X'10'" TIDAW transfer in channel - the 8-byte address is the starting address of the next TIDAL
	.... 1...			TIDAW0_GENCBC	"X'08'" For output requests, insert a Checking Block Code (CBC) word after transferring the data represented by this TIDAW. The setting of this bit is device and command dependent.
1	(1)	CHARACTER	3	TIDAW0_RSVD1	Reserved
4	(4)	SIGNED	4	TIDAW0_COUNT	The number of bytes to be transferred
8	(8)	ADDRESS	8	TIDAW0_ADDR(0)	Data address
8	(8)	ADDRESS	4	TIDAW0_ADDR_HIGH	High order word of address
12	(C)	ADDRESS	4	TIDAW0_ADDR_LOW	Low order word of address
12	(C) X'10'		0	TIDAW0_LEN	"*-TIDAW0"

Table 934. Cross Reference for IOSDTCW

Name	Offset	Hex Tag
TCW	0	
TCW_LEN	3C	40
TCWFLAGS	1	
TCWFLAG1	1	
TCWFLAG2	2	
TCWFLAG3	3	

Table 934. Cross Reference for IOSDTCW (continued)

Name	Offset	Hex Tag
TCWFORMAT	0	C0
TCWFORMAT_0	3C	0
TCWFORMAT_1	3C	40
TCWFORMAT_2	3C	80
TCWFORMAT_3	3C	C0
TCWFORMATRSVD1	0	3F
TCWINPUT@TIDAL	1	4
TCWINPUTADDR	10	
TCWINPUTBYTECOUNT	2C	
TCWINTERROGATEADDR	3C	
TCWOUTPUT@TIDAL	1	1
TCWOUTPUTADDR	8	
TCWOUTPUTBYTECOUNT	28	
TCWREAD	5	2
TCWRSVD1	1	80
TCWRSVD2	1	40
TCWRSVD3	1	20
TCWRSVD4	1	10
TCWRSVD5	1	8
TCWRSVD6	2	1F
TCWRSVD7	3	
TCWRSVD8	4	
TCWRSVD9	6	
TCWTCCB@TIDAL	1	2
TCWTCCBADDR	20	
TCWTCCBL	5	FC
TCWTCCBLRW	5	
TCWTIDAWFORMAT	2	C0
TCWTIDAWFORMAT_0	3C	0
TCWTIDAWFORMAT_1	3C	40
TCWTIDAWFORMAT_2	3C	80
TCWTIDAWFORMAT_3	3C	C0
TCWTSBADDR	18	
TCWTSRQB	2	20
TCWORD0	0	
TCWORD0BYTE0	0	
TCWORD1	4	
TCWORD12	30	
TCWORD13	34	

Table 934. Cross Reference for IOSDTCW (continued)

Name	Offset	Hex Tag
TCWORD14	38	
TCWRITE	5	1
TIDAW0	0	
TIDAW0_ADDR	8	
TIDAW0_ADDR_HIGH	8	
TIDAW0_ADDR_LOW	C	
TIDAW0_COUNT	4	
TIDAW0_DTINT	0	20
TIDAW0_FLAGS	0	
TIDAW0_GENCBC	0	8
TIDAW0_LAST	0	80
TIDAW0_LEN	C	10
TIDAW0_RSVD1	1	
TIDAW0_SKIP	0	40
TIDAW0_TTIC	0	10

## IOSDUPFX information

### IOSDUPFX programming interface information

**ONLY** the following fields are part of the programming interface information:

- UCBCHIPID
- UCBMBI
- UCBMCMB
- UCBRESVH
- UCBRESVP
- UCBRRP
- UCBSID
- UCBXUCBH

### IOSDUPFX heading information

**Common name:** UCB PREFIX MAPPING  
**Macro ID:** IOSDUPFX  
**DSECT name:** UPFX  
**Owning component:** IOS (SC1C3)  
**Eye-catcher ID:** NONE



**Storage attributes:** Main Storage: YES  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: 245  
Key: 0  
Residency: ABOVE THE LINE

**Size:** 48 BYTES

**Created by:** IOS

**Pointed to by:** N/A

**Serialization:** NONE  
THE FIELDS IN THE UCB PREFIX WILL BE VOLATILE,  
AND ARE ONLY FOR MONITORING PROGRAMS.

**Function:** UPFX WILL CONTAIN INFORMATION ABOUT THE STATE OF THE  
DEVICE.

## IOSDUPFX mapping

Table 935. Structure UPFX

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	UPFX	
0	(0)	BITSTRING	1	UCBRSTEM	Reset Event mask
1	(1)	SIGNED	1	UCBMIHKY	MIH UCB time interval key
IOS MIH control byte					
2	(2)	BITSTRING	1	UCBMIHTI	Missing Interrupt Handler byte
		1... ....		UCBMIHSS	"X'80'" Customer-specified scan interval being used
		.1.. ....		UCBMIHPB	"X'40'" With bit set, Missing Interrupt Handler checking of device is bypassed for started I/O requests for which idle with work queued conditions are not detected (set by device support code and MVS components)
		..1. ....		UCBMIHFF	"X'20'" MIH processing was turned OFF for the device via the SETIOS command or pairmlib
		...1 ....		UCBMIHMO	"X'10'" MIH Message-Only flag. Bypasses MIH/IOT recovery actions for the device. Currently used for I/O timing processing only.
		.... 1...		UCBIOQRP	"X'08'" Pending I/O request condition
		.... .1..		UCBMIHMP	"X'04'" Message pending, to be DOM'D during the next MIH scan
		.... ..1.		UCBMIHIO	"X'02'" Clear subchannel scheduled by MIH
		.... ...1		UCBPGDEV	"X'01'" Device is being used for paging. For PAV devices, this bit is only set in the base.
IOS HOT I/O control byte					
3	(3)	SIGNED	1	UCBHOTIO	HOT-I/O indicator
		1... ....		UCBHSCD	"X'80'" SCD associated with the UCB

Table 935. Structure UPFX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1... ....		UCBHSOL	"X'40'" A solicited interrupt has completed with other than DCC-3 since the last time HOT-I/O detection was called.
		..1. ....		UCBSUSOL	"X'20'" - Indicates that the last unsolicited interrupt occurred when a request was outstanding, and could have been induced
		...1 ....		UCBINDHI	"X'10'" - Indicates that an induced hot I/O condition has been detected on the device
		.... 1...		UCBHCHPR	"X'08'" Channel path recovery is attempting to clear up a HOT-I/O condition for this device.
		.... .111		UCBHCHPI	"X'07'" IF UCBHCHPR is on, this is an index into UCBCHPID, specifying the channel path over which the HOT-I/O condition was detected.
IOS UCB IOQ chains of I/O requests associated with this device					
4	(4)	ADDRESS	4	UCBIOQF	First request for this device
8	(8)	ADDRESS	4	UCBIOQL	Last request for this device
Associated subchannel data					
12	(C)	SIGNED	4	UCBSID(0)	Subsystem-identification word in connected subchannel (valid only if UCBNOCON is not set). Note that some information such as the subchannel set id will be valid regardless of whether the device is connected to a subchannel
12	(C)	SIGNED	2	UCBSIDA	First 16 bits of SID
12	(C)	X'D'	0	UCBSSID	"UCBSID+1,1" Subchannel set id (bits 13-14)
14	(E)	SIGNED	2	UCBSCHNO	Subchannel number - valid only if device is connected to a subchannel (i.e. UCBNOCON is off)
16	(10)	SIGNED	2	UCBPMCW1	Path management control word
EQU X'8000' Reserved - set to zero EQU X'4000' Reserved - set to zero					
16	(10)	BITSTRING	0	UCBISC	"X'3800'" Interruption subclass
EQU X'0400' Reserved - set to zero EQU X'0200' Reserved - set to zero EQU X'0100' Reserved - set to zero					
		1... ....		UCBENABL	"X'0080'" Subchannel enabled for interruptions
		.11. ....		UCBLM	"X'0060'" Limit mode checking state
		.... ....		UCBLNONE	"X'0000'" No limit mode checking
		..1. ....		UCBLGTE	"X'0020'" Data address must be greater than or equal to the limit
		.1... ....		UCBLLT	"X'0040'" Data address must be less than the limit
		...1 1...		UCBMM	"X'0018'" Measurement mode state
		...1 ....		UCBMCMB	"X'0010'" Store measurements in Channel Measurement Block

Table 935. Structure UPFX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1...		UCBMDCTI	"X'0008'" DCTI is to be stored in Extended Status Word
		.... .1..		UCBDPMPM	"X'0004'" Dynamic pathing multiple path state
		EQU X'0002' Reserved - set to zero EQU X'0001' Reserved - set to zero			
18	(12)	SIGNED	2	UCBMBI	Measurement Block Index
20	(14)	BITSTRING	1	UCBLPM	Logical path mask (LPM)
21	(15)	SIGNED	1		Reserved - set to zero
22	(16)	BITSTRING	1	UCBLPUM	Last path used mask (LPUM)
23	(17)	BITSTRING	1	UCBPIM	The path installed mask for this subchannel
24	(18)	BITSTRING	8	UCBCHPS(0)	The set of 8 channel paths associated with this subchannel.
24	(18)	SIGNED	1	UCBCHPID(8)	Array reference to each channel path identifier (CHPID) for this subchannel. (The bits in UCBLPM, UCBLPUM and UCBPIM map to the bytes in this array. For example, a X'80' in UCBPIM indicates the first byte in this array contains a CHPID for a path that is installed on the associated device.)
I/O Supervisor general fields					
32	(20)	SIGNED	1	UCBLEVEL	Highest level set in UCBLVMSK
33	(21)	BITSTRING	1	UCBIOSF1	IOS flag byte
		1... ....		UCBRESVH	"X'80'" Device reserved indicator
		.1.. ....		UCBVALPH	"X'40'" Path validation indicator
		..1. ....		UCBRESVP	"X'20'" Reserve channel program pending
		...1 ....		UCBRRP	"X'10'" Reserve/release pending
		.... 1...		UCBDPTH	"X'08'" Dynamic pathing feature has been initialized for this device
		.... .1..		UCBDPVAL	"X'04'" Dynamic pathing validation required
		.... ..1.		UCBDSTF	"X'02'" Restart device state transition flushing
		.... ...1		UCBAPGID	"X'01'" - Alternate PGID established
IOS I/O timing time interval key					
34	(22)	SIGNED	1	UCBIOTKY	I/O timing time interval key
IOS MIH flags byte					
35	(23)	SIGNED	1	UCBMIHFG	MIH flags byte
		1... ....		UCBMIHMT	"X'80'" Mount pending condition has been detected
		.1.. ....		UCBMIHMI	"X'40'" Missing interrupt condition has been detected
		..1. ....		UCBMIHIW	"X'20'" Idle with work queued condition been detected

Table 935. Structure UPFX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		UCBMIHC1	"X'10'" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to prevent improper detection of idle with work queued conditions.
		.... 1...		UCBIOTTM	"X'08'" An I/O timeout condition has been detected for an active I/O request
		.... .1..		UCBMIHC2	"X'04'" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to trigger stage 2 processing to initiate recovery for this case.
		.... ..1.		UCBMIMIH	"X'02'" Device support code requested entry to the MIH exit at the minimal MIH scan (one second) provided no I/O requests are active on the device. For PAV devices, this bit is only set in the base.
		.... ...1		UCBIOTHS	"X'01'" An IO Timing HyperSwap was triggered on this device.
IOS level bit mask					
36	(24)	BITSTRING	4	UCBLVMSK	UCB level bit mask
IOS UCB High Extension Pointer					
40	(28)	ADDRESS	8	UCBXUCBH	IOS UCB High Extension pointer

Table 936. Cross Reference for IOSDUPFX

Name	Offset	Hex	Tag
UCBAPGID	21		1
UCBCHPID	18		
UCBCHPS	18		
UCBDPMPM	10		4
UCBDPTH	21		8
UCBDPVAL	21		4
UCBDSTF	21		2
UCBENABL	10		80
UCBHCHPI	3		7
UCBHCHPR	3		8
UCBHOTIO	3		
UCBHSCD	3		80
UCBHSOL	3		40
UCBINDHI	3		10
UCBIOQF	4		
UCBIOQL	8		
UCBIOQRP	2		8

Table 936. Cross Reference for IOSDUPFX (continued)

Name	Offset	Hex Tag
UCBIOSF1	21	
UCBIOTHS	23	1
UCBIOTKY	22	
UCBIOTTM	23	8
UCBISC	10	3800
UCBLEVEL	20	
UCBLGTE	10	20
UCBLLT	10	40
UCBLM	10	60
UCBLNONE	10	0
UCBLPM	14	
UCBLPUM	16	
UCBLVMSK	24	
UCBMBI	12	
UCBMCMB	10	10
UCBMDCTI	10	8
UCBMIHC1	23	10
UCBMIHC2	23	4
UCBMIHFF	2	20
UCBMIHFG	23	
UCBMIHIO	2	2
UCBMIHIW	23	20
UCBMIHKY	1	
UCBMIHMI	23	40
UCBMIHMO	2	10
UCBMIHMP	2	4
UCBMIHMT	23	80
UCBMIHPB	2	40
UCBMIHSS	2	80
UCBMIHTI	2	
UCBMIMIH	23	2
UCBMM	10	18
UCBPGDEV	2	1
UCBPIM	17	
UCBPMCW1	10	
UCBRESVH	21	80
UCBRESVP	21	20
UCBRRP	21	10
UCBRSTEM	0	

Table 936. Cross Reference for IOSDUPFX (continued)

Name	Offset	Hex Tag
UCBSCHNO	E	
UCBSID	C	
UCBSIDA	C	
UCBSSID	C	D
UCBSUSOL	3	20
UCBVALPH	21	40
UCBXUCBH	28	
UPFX	0	

## IOSDUPI information

### IOSDUPI programming interface information

**ONLY** the following fields are part of the programming interface information:

- UCBCHIPID
- UCBMBI
- UCBMCMB
- UCBRESVH
- UCBRESVP
- UCBRRP
- UCBSID

### IOSDUPI heading information

<b>Common name:</b>	UCB Prefix Information Area
<b>Macro ID:</b>	IOSDUPI
<b>DSECT name:</b>	UCBPDATA
<b>Owning component:</b>	IOS (SC1C3)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Main Storage: Yes Virtual Storage: N/A Subpool: Invoker of UCB services Key: Invoker of UCB services Residency: Invoker of UCB services
<b>Size:</b>	48 bytes
<b>Created by:</b>	Invoker of UCB services
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	This macro maps the UCB prefix data returned by the UCB services UCBINFO, UCBLOOK, or UCBSCAN

## IOSDUPI mapping

Table 937. Structure UCBPDATA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	UCBPDATA	Copy of UCB prefix data
0	(0)	BITSTRING	1	UCBRSTEM	Reset Event mask
1	(1)	SIGNED	1	UCBMIHKY	MIH UCB time interval key
IOS MIH control byte					
2	(2)	BITSTRING	1	UCBMIHTI	Missing Interrupt Handler byte
		1... ....		UCBMIHSS	"X'80'" Customer-specified scan interval being used
		.1.. ....		UCBMIHPB	"X'40'" With bit set, Missing Interrupt Handler checking of device is bypassed for started I/O requests for which idle with work queued conditions are not detected (set by device support code and MVS components)
		..1. ....		UCBMIHFF	"X'20'" MIH processing was turned OFF for the device via the SETIOS command or parmlib
		...1 ....		UCBMIHMO	"X'10'" MIH Message-Only flag. Bypasses MIH/IOT recovery actions for the device. Currently used for I/O timing processing only.
		.... 1...		UCBIOQRP	"X'08'" Pending I/O request condition
		.... .1..		UCBMIHMP	"X'04'" Message pending, to be DOM'D during the next MIH scan
		.... ..1.		UCBMIHIO	"X'02'" Clear subchannel scheduled by MIH
		.... ...1		UCBPGDEV	"X'01'" Device is being used for paging. For PAV devices, this bit is only set in the base.
IOS HOT I/O control byte					
3	(3)	SIGNED	1	UCBHOTIO	HOT-I/O indicator
		1... ....		UCBHSCD	"X'80'" SCD associated with the UCB
		.1.. ....		UCBHSQL	"X'40'" A solicited interrupt has completed with other than DCC-3 since the last time HOT-I/O detection was called.
		..1. ....		UCBSUSOL	"X'20'" - Indicates that the last unsolicited interrupt occurred when a request was outstanding, and could have been induced
		...1 ....		UCBINDHI	"X'10'" - Indicates that an induced hot I/O condition has been detected on the device
		.... 1...		UCBHCHPR	"X'08'" Channel path recovery is attempting to clear up a HOT-I/O condition for this device.
		.... .111		UCBHCHPI	"X'07'" IF UCBHCHPR is on, this is an index into UCBCHPID, specifying the channel path over which the HOT-I/O condition was detected.
IOS UCB IOQ chains of I/O requests associated with this device					
4	(4)	ADDRESS	4	UCBIOQF	First request for this device
8	(8)	ADDRESS	4	UCBIOQL	Last request for this device

Table 937. Structure UCBPDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Associated subchannel data					
12	(C)	SIGNED	4	UCBSID(0)	Subsystem-identification word in connected subchannel (valid only if UCBNOCON is not set). Note that some information such as the subchannel set id will be valid regardless of whether the device is connected to a subchannel
12	(C)	SIGNED	2	UCBSIDA	First 16 bits of SID
12	(C)	X'D'	0	UCBSSID	"UCBSID+1,1" Subchannel set id (bits 13-14)
14	(E)	SIGNED	2	UCBSCHNO	Subchannel number - valid only if device is connected to a subchannel (i.e. UCBNOCON is off)
16	(10)	SIGNED	2	UCBPMCw1	Path management control word
EQU X'8000' Reserved - set to zero EQU X'4000' Reserved - set to zero					
16	(10)	BITSTRING	0	UCBISC	"X'3800'" Interruption subclass
EQU X'0400' Reserved - set to zero EQU X'0200' Reserved - set to zero EQU X'0100' Reserved - set to zero					
		1... ....		UCBENABL	"X'0080'" Subchannel enabled for interruptions
		.11. ....		UCBLM	"X'0060'" Limit mode checking state
		.... ....		UCBLNONE	"X'0000'" No limit mode checking
		..1. ....		UCBLGTE	"X'0020'" Data address must be greater than or equal to the limit
		.1.. ....		UCBLLT	"X'0040'" Data address must be less than the limit
		...1 1...		UCBMM	"X'0018'" Measurement mode state
		...1 ....		UCBMCMB	"X'0010'" Store measurements in Channel Measurement Block
		.... 1...		UCBMDCTI	"X'0008'" DCTI is to be stored in Extended Status Word
		.... .1..		UCBDPMPM	"X'0004'" Dynamic pathing multiple path state
EQU X'0002' Reserved - set to zero EQU X'0001' Reserved - set to zero					
18	(12)	SIGNED	2	UCBMBI	Measurement Block Index
20	(14)	BITSTRING	1	UCBLPM	Logical path mask (LPM)
21	(15)	SIGNED	1		Reserved - set to zero
22	(16)	BITSTRING	1	UCBLPUM	Last path used mask (LPUM)
23	(17)	BITSTRING	1	UCBPIM	The path installed mask for this subchannel
24	(18)	BITSTRING	8	UCBCHPS(0)	The set of 8 channel paths associated with this subchannel.



Table 937. Structure UCBPDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
24	(18)	SIGNED	1	UCBCHPID(8)	Array reference to each channel path identifier (CHPID) for this subchannel. (The bits in UCBLPM, UCBLPUM and UCBPIM map to the bytes in this array. For example, a X'80' in UCBPIM indicates the first byte in this array contains a CHPID for a path that is installed on the associated device.)
I/O Supervisor general fields					
32	(20)	SIGNED	1	UCBLEVEL	Highest level set in UCBLVMSK
33	(21)	BITSTRING	1	UCBIOSF1	IOS flag byte
		1... ....		UCBRESVH	"X'80'" Device reserved indicator
		.1.. ....		UCBVALPH	"X'40'" Path validation indicator
		..1. ....		UCBRESVP	"X'20'" Reserve channel program pending
		...1 ....		UCBRRP	"X'10'" Reserve/release pending
		.... 1...		UCBDPTH	"X'08'" Dynamic pathing feature has been initialized for this device
		.... .1..		UCBDPVAL	"X'04'" Dynamic pathing validation required
		.... ..1.		UCBDSTF	"X'02'" Restart device state transition flushing
		.... ...1		UCBAPGID	"X'01'" - Alternate PGID established
IOS I/O timing time interval key					
34	(22)	SIGNED	1	UCBIOTKY	I/O timing time interval key
IOS MIH flags byte					
35	(23)	SIGNED	1	UCBMIHFG	MIH flags byte
		1... ....		UCBMIHMT	"X'80'" Mount pending condition has been detected
		.1.. ....		UCBMIHMI	"X'40'" Missing interrupt condition has been detected
		..1. ....		UCBMIHIW	"X'20'" Idle with work queued condition been detected
		...1 ....		UCBMIHC1	"X'10'" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to prevent improper detection of idle with work queued conditions.
		.... 1...		UCBIOTTM	"X'08'" An I/O timeout condition has been detected for an active I/O request
		.... .1..		UCBMIHC2	"X'04'" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to trigger stage 2 processing to initiate recovery for this case.
		.... ..1.		UCBMIMIH	"X'02'" Device support code requested entry to the MIH exit at the minimal MIH scan (one second) provided no I/O requests are active on the device. For PAV devices, this bit is only set in the base.

Table 937. Structure UCBPDATA (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ...1		UCBIOTHS	"X'01'" An IO Timing HyperSwap was triggered on this device.
IOS level bit mask					
36	(24)	BITSTRING	4	UCBLVMSK	UCB level bit mask
UCB lock word and pointer to the active IOQ element					
40	(28)	SIGNED	4	UCBLOCKC	Device lock word
44	(2C)	ADDRESS	4	UCBIOQC	Address of last queuing element started, halted, or cleared for this device. This field contains a valid address only when UCBSTRT, UCBHALT, or UCBCLEAR are set on.

Table 938. Cross Reference for IOSDUPI

Name	Offset	Hex Tag
UCBAPGID	21	1
UCBCHPID	18	
UCBCHPS	18	
UCBDPMPM	10	4
UCBDPTH	21	8
UCBDPVAL	21	4
UCBDSTF	21	2
UCBENABL	10	80
UCBHCHPI	3	7
UCBHCHPR	3	8
UCBHOTIO	3	
UCBHSCD	3	80
UCBHSOL	3	40
UCBINDHI	3	10
UCBIOQC	2C	
UCBIOQF	4	
UCBIOQL	8	
UCBIOQRP	2	8
UCBIOSF1	21	
UCBIOTHS	23	1
UCBIOTKY	22	
UCBIOTTM	23	8
UCBISC	10	3800
UCBLEVEL	20	
UCBLGTE	10	20
UCBLLT	10	40
UCBLM	10	60

Table 938. Cross Reference for IOSDUPI (continued)

Name	Offset	Hex Tag
UCBLNONE	10	0
UCBLOCKC	28	
UCBLPM	14	
UCBLPUM	16	
UCBLVMSK	24	
UCBMBI	12	
UCBMCMB	10	10
UCBMDCTI	10	8
UCBMIHC1	23	10
UCBMIHC2	23	4
UCBMIHFF	2	20
UCBMIHFG	23	
UCBMIHIO	2	2
UCBMIHIW	23	20
UCBMIHKY	1	
UCBMIHMI	23	40
UCBMIHMO	2	10
UCBMIHMP	2	4
UCBMIHMT	23	80
UCBMIHPB	2	40
UCBMIHSS	2	80
UCBMIHTI	2	
UCBMIMIH	23	2
UCBMM	10	18
UCBPDATA	0	
UCBPGDEV	2	1
UCBPIM	17	
UCBPMCW1	10	
UCBRESVH	21	80
UCBRESVP	21	20
UCBRRP	21	10
UCBRSTEM	0	
UCBSCHNO	E	
UCBSID	C	
UCBSIDA	C	
UCBSSID	C	D
UCBSUSOL	3	20
UCBVALPH	21	40

## IOSDVSAP information

### IOSDVSAP programming interface information

IOSDVSAP is a programming interface.

### IOSDVSAP heading information

<b>Common name:</b>	Vary Switch API Element
<b>Macro ID:</b>	IOSDVSAP
<b>DSECT name:</b>	VSAP_RESOURCE
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	VSAP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: User's Key: User's Residency: ANY
<b>Size:</b>	See mapping
<b>Created by:</b>	Storage obtained by IOSVRYSW invoker.
<b>Pointed to by:</b>	User defined pointer
<b>Serialization:</b>	None
<b>Function:</b>	IOSDVSAP maps each element of the array of resource elements that is passed to the IOSVRYSW Vary Switch API. Each element is created by a separate IOSVRYSW BUILD invocation.

### IOSDVSAP mapping

Table 939. Structure VSAP\_RESOURCE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	VSAP_RESOURCE	Vary Switch element
0	(0)	CHARACTER	4	VSAP_ID	Acronym ('VSAP')
4	(4)	BITSTRING	1	VSAP_VER	Macro version level
5	(5)	BITSTRING	1	VSAP_FLAGS	VSAP flags
		1... ....		VSAP_ONLINE	"X'80'" Switch/port is to be brought online to DCM
		.1.. ....		VSAP_OFFLINE	"X'40'" Switch/port is to be taken offline to DCM
		..1. ....		VSAP_UNCOND	"X'20'" An UNCOND request is to be specified on the VARY PATH commands invoked as a result of this VARY SWITCH request.
EQU X'1F' Reserved					
6	(6)	CHARACTER	4		Reserved
10	(A)	BITSTRING	2	VSAP_SWITCHDEV	Switch device number being altered
12	(C)	BITSTRING	1	VSAP_PORTADDR	Port address being altered

Table 939. Structure VSAP\_RESOURCE (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
13	(D)	BITSTRING	3		Reserved
13	(D)	X'10'	0	VSAPEND	"*" End of VSAP
Various constants					
13	(D)	X'1'	0	VSAPV707	"1" Level HBB7707
13	(D)	X'1'	0	VSAPVRSN	"VSAPV707" Current version
13	(D)	X'10'	0	VSAPSIZE	"VSAPEND-VSAP_RESOURCE" Size of VSAP
Return Code constants					
...1 .... IOSDVSAP_VSWITCH_UNEXPECTED_ERROR					
					"X'10'" An unexpected error occurred further in the Vary Switch Processing.
13	(D)	BITSTRING	0	IOSDVSAP_ABEND_ACCESSING_STORAGE	"X'FF04'" Storage passed on the macro call was not accessible by the service.
13	(D)	BITSTRING	0	IOSDVSAP_ASIM_FAILURE	"X'FF08'" The attempt to queue a work element to the IOS address space failed. Request is currently not able to be performed.
13	(D)	BITSTRING	0	IOSDVSAP_BAD_DATA	"X'FF0C'" VSAP data is readable but not valid.
13	(D)	BITSTRING	0	IOSDVSAP_ENVIRONMENTAL_ERROR	"X'FF10'" Caller is not in a valid environment to invoke the IOSVRYSW API.
13	(D)	BITSTRING	0	IOSDVSAP_SYSTEM_ERROR	"X'FF14'" The processing suffered a catastrophic error. Function could not be processed.
13	(D)	BITSTRING	0	IOSDVSAP_ESTAE_ERROR	"X'FF18'" IOSVRYSW processing module IOSVVSWF could not establish a recovery environment.

Table 940. Cross Reference for IOSDVSAP

Name	Offset	Hex Tag
IOSDVSAP_ABEND_ACCESSING_STORAGE	D	FF04
IOSDVSAP_ASIM_FAILURE	D	FF08
IOSDVSAP_BAD_DATA	D	FF0C
IOSDVSAP_ENVIRONMENTAL_ERROR	D	FF10
IOSDVSAP_ESTAE_ERROR	D	FF18
IOSDVSAP_SYSTEM_ERROR	D	FF14
IOSDVSAP_VSWITCH_UNEXPECTED_ERROR	D	10
VSAP_FLAGS	5	
VSAP_ID	0	
VSAP_OFFLINE	5	40
VSAP_ONLINE	5	80
VSAP_PORTADDR	C	
VSAP_RESOURCE	0	

Table 940. Cross Reference for IOSDV SAP (continued)

Name	Offset	Hex Tag
VSAP_SWITCHDEV	A	
VSAP_UNCOND	5	20
VSAP_VER	4	
VSAPEND	D	10
VSAPSIZE	D	10
VSAPVRSN	D	1
VSAPV707	D	1

## IOSDZHPF information

### IOSDZHPF programming interface information

IOSDZHPF is a programming interface.

### IOSDZHPF heading information

<b>Common name:</b>	zHPF Channel Program Information Area
<b>Macro ID:</b>	IOSDZHPF
<b>DSECT name:</b>	ZHPF_Info
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Any Key: Any Residency: Any
<b>Size:</b>	32 bytes
<b>Created by:</b>	Issuer of IOSZHPF
<b>Pointed to by:</b>	IOSZHPF parameter list
<b>Serialization:</b>	None
<b>Function:</b>	<p>IOSDZHPF maps the information which is returned by the IOSZHPF macro, which describes the zHPF capabilities of a device from an operating system, processor, online channel, and device point of view.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>-- Some capabilities must be supported by both the processor and device before they can be used in a zHPF channel program. For example, if a program wants to build a channel program that requires the bi-directional or incorrect length capabilities, it must check whether the appropriate processor and device related flags are on. Otherwise, the channel program will fail.</li> <li>-- The following macros are used to define the device specific capabilities in field ZHPF_DevCapabilities:</li> </ul> <p>Device Class Mapping Macro</p> <pre> ----- DASD      IECDZHPF </pre>

## IOSDZHPF mapping

Table 941. Structure ZHPF\_INFO

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ZHPF_INFO	zHPF Channel Program Information Area
0	(0)	BITSTRING	1	ZHPF_VERSION	Version number
1	(1)	BITSTRING	1	ZHPF_FLAG1(0)	Capabilities flag 1
		1... ....		ZHPF_BIDI	"X'80'" Indicates that all of the online paths for the device support bidirectional data for zHPF I/O requests.
		.1.. ....		ZHPF_EXCPVR	"X'40'" zHPF is supported for EXCPVR requests
		..1. ....		ZHPF_INCORRECT_LEN	"X'20'" The incorrect length facility is supported by the processor
		...1 ....		ZHPF_EXCP	"X'10'" zHPF is supported for EXCP virtual requests
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ZHPF_MAXXFERSIZE	Maximum amount of data (in bytes) that can be transferred in a single Transport Control Area (TCA)
8	(8)	CHARACTER	8	ZHPF_DEVCAPABILITIES	Device specific zHPF capabilities. This field is valid only when DEVINFO(YES) is specified on the IOSZHPF macro. See the appropriate device dependent macro for a mapping of this information.
16	(10)	CHARACTER	16		Reserved
32	(20)	CHARACTER	1	ZHPF_END(0)	End of ZHPF
ZHPF Version					

32	(20)	X'1'	0	ZHPF_VERSION_CURRENT	"1" Current ZHPF version number
32	(20)	X'20'	0	ZHPF_INFO_LEN	"*-ZHPF_INFO"

Table 942. Cross Reference for IOSDZHPF

Name	Offset	Hex	Tag
ZHPF_BIDI	1		80
ZHPF_DEVCAPABILITIES	8		
ZHPF_END	20		
ZHPF_EXCP	1		10
ZHPF_EXCPVR	1		40
ZHPF_FLAG1	1		
ZHPF_INCORRECT_LEN	1		20
ZHPF_INFO	0		
ZHPF_INFO_LEN	20		20
ZHPF_MAXXFERSIZE	4		
ZHPF_VERSION	0		
ZHPF_VERSION_CURRENT	20		1

## IPIB information

### IPIB heading information

**Common name:** I/O Purge Interface Block

**Macro ID:** IECDIPIB

**DSECT name:** IPIB

**Owning component:** I/O Supervisor (SC1C3)

**Eye-catcher ID:** IPIB  
Offset: 44  
Length: 4

**Storage attributes:** Main Storage: YES  
Virtual Storage: N/A  
Auxiliary Storage: N/A  
Subpool: 226  
Key: 0  
Data Space: N/A  
Residency: Below 16M

**Size:** IPIB - 56 Bytes  
IPIB Extension - 32 Bytes

**Created by:** IOSPURGA

**Pointed to by:** IOSIPIB field of the IOSB  
ASCBIOSP field of the ASCB  
PWAIPIB field of the PWA  
IOCPURGC field of the IOCOM

**Serialization:** IPIB - None  
IPIB Extension - IOSYNCH Lock

**Function:** Describes the IOS purge interface block and IOS purge interface block extension that is used to contain all the information that is communicated between the IOS purge function and the IOS drivers.

### IPIB mapping

Table 943. Structure IPIB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	56	IPIB	
0	(0)	BITSTRING	1	IPIBOPT	Purge Option flags.....
		1... ....		IPIBMEM	ASID (memory purge) specified
		.1.. ....		IPIBTASK	TCB purge was specified if not ASID purge
		..1. ....		IPIBRBP	RB purge specified
		...1 ....		IPIBPOST	Post the ECBs related to the I/O requests that are purged.
		.... 1...		IPIBREL	Purge only related requests (EXCP driver only)



Table 943. Structure IPIB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... .1..		IPIBHALT	Halt I/O requests - do not build a restore chain
		.... ..1.		IPIBOTCB	Purge so I/O requests may be restored to the originating TCB.
		.... ...1		IPIBPVNT	I/O Prevention request
1	(1)	CHARACTER	1	IPIBDVID	Driver ID for DSID purge, default value of X'00' implies EXCP.
2	(2)	BITSTRING	1	IPIBFLG1	Flag byte.....
		1... ....		IPIBDQ	IOSPURGA issued the PURGEDQ macro.
		.1.. ....		IPIBTIME	Indicator to show that quiesce is being timed.
		..1. ....		IPIBPBUV	Indicator to show purge by UCB validity check done.
		...1 ....		IPIBCHN	IPIB chained on Purge Quiesce queue (IOCPURGQ)
		.... 1...		IPIBSRBS	Indicates to the IOS IPIB decrement routine that the SRB in field IPIBSRBP is to be scheduled when the quiesce count (IPIBCNT) has gone to zero.
		.... .1..		IPIBQUIA	Indicates that the quiesce function is still active looking for I/O requests that have to be counted.
		.... ..1.		IPIBADLIO	When set to '1'b by EXCP or any I/O driver's purge exit, indicates that additional I/O needs to execute to completion during purge quiesce processing
		.... ...1		IPIBAUTH	When set to '1'b indicates that purge quiesce processing is executing in an authorized environment. Authorized and unauthorized I/O will be processed by the I/O driver exit. When set to '0'b indicates that purge quiesce processing is executing in an unauthorized environment and only unauthorized I/O should be processed.
3	(3)	BITSTRING	1	IPIBFLG2	Flag byte2
		1... ....		IPIBAUTHIO	When set to '1'b indicates that an authorized I/O has been placed on the restore list. When set to '0'b indicates that no authorized I/O has been placed on the restore list.
4	(4)	CHARACTER	4	IPIBCNT	Count of I/O requests to be completed. Decremented by IOS drivers when the I/O event completes by calling IECVQCNT routine in IOSPURGD
8	(8)	ADDRESS	4	*	
8	(8)	ADDRESS	4	IPIBECB	ECB to be posted when the IPIBCNT goes to zero. Purge waits on this ECB when count is established
8	(8)	ADDRESS	4	IPIBSRBP	SRB to be scheduled when the IPIBCNT goes to zero. Purge continues when this SRB is scheduled.

This field contains the purge argument that is used when searching the system data areas for I/O requests that have to be halted or quiesced. This field will contain one of the following:

- o ASID purge- right two bytes the address space being purged and the left two bytes the sign bit of the ASID.
- o TCB purge- Contains the TCB address.
- o DSID purge- Contains the DSID address (argument)

Table 943. Structure IPIB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	ADDRESS	4	IPIBARG	Purge argument.....
16	(10)	ADDRESS	4	IPIBSRB	Pointer to the first SRB of SRBS that have been collected for return to the appropriate driver
20	(14)	CHARACTER	8	*	
20	(14)	ADDRESS	4	IPIBIO	Pointer to the I/O request returned to purge for placement on the PIRL (Quiesce function)
24	(18)	ADDRESS	4	IPIBDVRU	Pointer to additional data that a driver provides to be made available when the driver is requested to restore. Purge sets this driver data in the driver slot on the PIRL
28	(1C)	ADDRESS	4	IPIBPIRL	Pointer to the PIRL associated with purge request.
32	(20)	ADDRESS	4	IPIBPSQ	Pointer to the chain of I/O requests involved with this purge, found by routines running asynchronously with the purge routine (E.G. the interrupt handler).
36	(24)	ADDRESS	4	IPIBLNK	Pointer to a chained IPIB for a halt purge. The first would be a quiesce.
40	(28)	ADDRESS	4	IPIBASCB	ASCB address for memory in which purge was issued.
44	(2C)	CHARACTER	4	IPIBIPIB	Control block acronym --in EBCDIC--
48	(30)	ADDRESS	4	IPIBPASS	IPIB pass count.
52	(34)	ADDRESS	4	IPIBARG2	If purge by UCB, contains the address of UCB to use as second argument on driver call.
56	(38)	CHARACTER	0	IPIBEND	End of IPIB

Table 944. Structure IPBE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	32	IPBE	IPIB extension
0	(0)	ADDRESS	4	IPBENIPB	Pointer to next IPIB on chain. The only IPIBs on this chain are for I/O that are currently undergoing I/O Prevention and Purge Quiesce simultaneously. If zero, it is the last IPIB on the chain.
4	(4)	ADDRESS	4	IPBEPIPB	Pointer to previous IPIB Extension on the chain. If zero, it is the first IPIB on the chain.
8	(8)	CHARACTER	24	*	Reserved

Table 945. Cross Reference for IPIB

Name	Offset	Hex Tag
IPBE	0	
IPBENIPB	0	
IPBEPIPB	4	
IPIB	0	
IPIBADLIO	2	02

Table 945. Cross Reference for IPIB (continued)

Name	Offset	Hex Tag
IPIBARG	C	
IPIBARG2	34	
IPIBASCB	28	
IPIBAUTH	2	01
IPIBAUTHIO	3	80
IPIBCHN	2	10
IPIBCNT	4	
IPIBDQ	2	80
IPIBDVID	1	
IPIBDVRU	18	
IPIBECB	8	
IPIBEND	38	
IPIBFLG1	2	
IPIBFLG2	3	
IPIBHALT	0	04
IPIBIO	14	
IPIBIPIB	2C	
IPIBLNK	24	
IPIBMEM	0	80
IPIBOPT	0	
IPIBOTCB	0	02
IPIBPASS	30	
IPIBPBUV	2	20
IPIBPIRL	1C	
IPIBPOST	0	10
IPIBPSQ	20	
IPIBPVNT	0	01
IPIBQUIA	2	04
IPIBRBP	0	20
IPIBREL	0	08
IPIBSRB	10	
IPIBSRBP	8	
IPIBSRBS	2	08
IPIBTASK	0	40
IPIBTIME	2	40

## IPWA information

### IPWA heading information

<b>Common name:</b>	IPWA - Purge Work Area
<b>Macro ID:</b>	IOSDIPWA
<b>DSECT name:</b>	PWA, PWAEXT
<b>Owning component:</b>	I/O Supervisor (SC1C3)
<b>Eye-catcher ID:</b>	IPWA Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: n/a Auxiliary Storage: n/a Key: 0 Residency: PWA Above 16M line SQA storage PWAEXT below 16M line SQA storage
<b>Size:</b>	PWA 732 bytes PWAEXT 144 bytes
<b>Created by:</b>	IOSPURGA, IOSPURGC
<b>Pointed to by:</b>	PWA - PWAPtr (Register 6) in IOSPURGA, IOSPURGB, IOSPURGC module PWA31PTR in PWAEXT structure in IOSDIPWA PWAEXT - PWA24Ptr in PWA structure in IOSDIPWA
<b>Serialization:</b>	Area PWAIPIBE is serialized via IOSYNCH lock. The other areas of the PWA have none.
<b>Function:</b>	This DSECT describes the control block mapping the dynamic workarea used by the modules implementing purge process.

### IPWA mapping

Table 946. Structure PWA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	712	PWA	
0	(0)	CHARACTER	4	PWAID	IDENTIFIER 'IPWA'
4	(4)	ADDRESS	4	PWA24PTR	24 bit PWA mapped by PWAEXT
8	(8)	ADDRESS	4	PWAIPIBA	Address of IPIB
12	(C)	CHARACTER	32	PWANPPL	NPPL GOES HERE
44	(2C)	ADDRESS	4	PWAPRLPT	
48	(30)	ADDRESS	4	PWASAVWD	SAVEAREA FOR BRANCH CALLER'S SAVEAREA PTR
52	(34)	SIGNED	4	PWAHCNT	PURGE HALT COUNT
56	(38)	SIGNED	4	PWAHALTQ	QUEUE OF HALTED SRBS

Table 946. Structure PWA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
60	(3C)	SIGNED	4	PWAHECB	ECB FOR WAITING ON HALTS
64	(40)	SIGNED	2	*	NUMBER OF TIMES ESTAE ENTERED
66	(42)	CHARACTER	1	PWAMASK	MASK FLAG BYTE
		1... ....		*	RESERVED
		.1.. ....		PWALOCKEDEBS	PURGA locked one or more DEBs
		..1. ....		PWAGETMN	Storage obtained via GETMAIN
		...1 ....		PWASTIME	Indicator that start time must be stored in the EWA
		.... 1...		PWAIOCNT	Indicator that I/O should be counted in the IPIB
		.... .1..		PWANODRV	Indicator that driver ID not provided
		.... ..1.		PWABRNCH	INDICATOR THAT PURGE WAS CALLED VIA BRANCH ENTRY
		.... ...1		PWAFREE	INDICATOR THAT PIRL MUST BE FREED
67	(43)	BITSTRING	1	PWARETC	RETURN CODE FLAG BYTE
		1... ....		PWATCB	TCB NOT PURGEABLE
		.1.. ....		PWADSID	DSID NOT PURGEABLE OR PURGE BY UCB INVALID
		..1. ....		PWANOENQ	Unable to obtain ENQ resource.
		...1 1111		*	RESERVED
68	(44)	BITSTRING	1	PWARETC2	SECOND RETURN CODE FLAG BYTE
		1... ....		PWAMEM	MEMORY PURGE INVALID
		.1.. ....		PWAESTA	indicator that ESTAE has been established.
		..1. ....		PWAPURGB	indicator that PURGB in control
		...1 ....		PWAPURGC	indicator that PURGC in control
		.... 1...		PWACYCLE	purge is the process of looping
		.... .1..		PWAINVAL	flag to indicate that purge failed for one reason or another.
		.... ..1.		PWASYNCH	indicator that IOSYNCH lock obtained to synchronize IPIBPURG and IOSVPRGA
		.... ...1		PWASYNEQ	indicator that IOSYNCH lock obtained in PSRBENQ to look at PCI IOSBs.
69	(45)	CHARACTER	3	*	Reserved for alignment purposes.
72	(48)	ADDRESS	4	PWASAVP	PIRL POINTER
76	(4C)	ADDRESS	4	PWAUCBLK	Savearea for UCB lock address.
80	(50)	ADDRESS	4	PWARET0	Return address for subroutines.
84	(54)	ADDRESS	4	PWARET1	Return address for subroutines.
88	(58)	ADDRESS	4	PWARET2	Return address for subroutines.
92	(5C)	ADDRESS	4	PWARET3	Return address for subroutines.
96	(60)	ADDRESS	4	PWARET4	Return address for subroutines.
100	(64)	ADDRESS	4	PWARET5	Return address for subroutines.
104	(68)	ADDRESS	4	PWARET15	Return address for subroutines.
108	(6C)	ADDRESS	4	PWAUCBP	Active UCB pointer.
112	(70)	ADDRESS	4	PWACSAV1	Save area for IOSPURGC
116	(74)	ADDRESS	4	PWACSAV2	Save area for IOSPURGC
120	(78)	CHARACTER	68	PWAEMCPM	

Table 946. Structure PWA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Static parameters are placed here.					
120	(78)	ADDRESS	4	PWAEASPT	ASID pointer
124	(7C)	ADDRESS	4	PWAEPMPT	address of ASID and TCB pointer.
128	(80)	ADDRESS	4	PWAERMTR	Cleanup routine address.
132	(84)	CHARACTER	8	PWAEPPDM	
132	(84)	CHARACTER	2	*	Halfword alignment.
134	(86)	SIGNED	2	PWAEASID	ASID.
136	(88)	SIGNED	4	PWAETCB	TCB pointer.
140	(8C)	CHARACTER	48	PWAEQSV	PurgeDQ Save Area 3-14
140	(8C)	CHARACTER	4	PWADQS3	Save area for Register 3
144	(90)	CHARACTER	4	PWADQS4	Save area for Register 4
148	(94)	CHARACTER	4	PWADQS5	Save area for Register 5
152	(98)	CHARACTER	4	PWADQS6	Save area for Register 6
156	(9C)	CHARACTER	4	PWADQS7	Save area for Register 7
160	(A0)	CHARACTER	4	PWADQS8	Save area for Register 8
164	(A4)	CHARACTER	4	PWADQS9	Save area for Register 9
168	(A8)	CHARACTER	4	PWADQSA	Save area for Register 10
172	(AC)	CHARACTER	4	PWADQSB	Save area for Register 11
176	(B0)	CHARACTER	4	PWADQSC	Save area for Register 12
180	(B4)	CHARACTER	4	PWADQSD	Save area for Register 13
184	(B8)	CHARACTER	4	PWADQSE	Save area for Register 14
188	(BC)	CHARACTER	72	PWAEABSV	18 word savearea for calls from IOSPURGA to IOSPURGB.
260	(104)	CHARACTER	72	PWAEBCSV	18 word savearea for calls from IOSPURGB to IOSPURGC.
260	(104)	CHARACTER	4	PWAEBCR0	
264	(108)	CHARACTER	4	PWAEBCR1	
268	(10C)	CHARACTER	4	PWAEBCR2	
272	(110)	CHARACTER	60	*	
332	(14C)	SIGNED	2	PWAIQNLN	Length of an IOQ.
334	(14E)	SIGNED	2	PWAASID	ASID for which purge working.
336	(150)	UNSIGNED	2	PWAPRLNG	PIRL length.
338	(152)	BITSTRING	1	PWAFLG0	Flags used by FRR or ESTAE.
		1... ....		PWAPGCT	IOCPGCT is active.
		.1.. ....		PWAIOSP	ASCBIOSP is active.
		..1. ....		PWASTATS	Status stop is active.
		...1 ....		PWAENQFL	SRB ENQ is active.
		.... 1...		PWASDBF	4K SDWA buffer is held.
		.... .1..		PWAIQNP	IOQ purge active.
		.... ..1.		PWARCRTY	Retry will be attempted from recovery routine.
		.... ...1		PWAFRR	FRR is active.
339	(153)	BITSTRING	1	PWAFLG1	Flags used by FRR and ESTAE.
		1... ....		PWALOCAL	Local lock is held.
		.1.. ....		PWACMS	CMS lock is held.

Table 946. Structure PWA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		PWASYNLK	IOSYNCH lock is held (SYNPURGE).
		...1 ....		PWANSDWA	No SDWA obtained in recovery.
		.... 1...		PWAWKUP	Purge was woken up by timer pop
		.... .1..		PWARETRY	HSCH will be attempted again.
		.... ..1.		PWAUSPM	Processing is taking place which is dependent on integrity of user parameters (purge parameter list)
		.... ...1		PWAUSPM2	Indicator that users parameter is being moved to PWA in IOSPURGC.
340	(154)	ADDRESS	4	PWA13BSV	Savearea for register 13.
344	(158)	ADDRESS	4	PWAE5V13	savearea for register 13.
348	(15C)	ADDRESS	4	PWAE2S13	savearea for savearea pointer.
352	(160)	CHARACTER	72	PWAECBSV	savearea for calls from PURGC to
424	(1A8)	CHARACTER	44	PWAE5RB	SRB goes here.
468	(1D4)	BITSTRING	1	PWAF1G2	Flags used by FRR and ESTAE.
		1... ....		PWAPRBST	Caller was in problem state
		.1.. ....		PWASTTCB	Indicates that only TCBs need to be started
469	(1D5)	BITSTRING	1	PWAPHWD	Flags used for controlling Purge Halt with delay processing
		1... ....		PWAPHWD1	Purge halt with delay - first pass processing. Dequeue the inactive I/O operations and halt the non-DASD I/O and read only DASD I/O
		.1.. ....		PWAPHWD2	Simulate Purge Quiesce in order to wait for active DASD writes
		..1. ....		PWAPHWD3	Simulated purge quiesce is complete, do one more purge halt in case any new operations got started
		...1 ....		PWAPHWDT	Terminate current I/O request
		.... 1...		PWAPHWDWRITE	Found at least one DASD write I/O operation in the first pass, must perform purge quiesce (2nd pass)
		.... .1..		PWAPHWDZHPF	Found at least one zHPF read I/O operation in the first pass, so we must perform a purge quiesce (2nd pass)
470	(1D6)	CHARACTER	1	PWAPHWDF	File mask of current I/O
471	(1D7)	BITSTRING	1	PWAF1G3	Flag byte 3
		1... ....		PWARESTP	Work bit to status stop TCBs/SRBs after a clear subchannel is done.
		.1.. ....		PWADIVIO	Purge is waiting for DIV I/O to complete
		..1. ....		PWAXSB	Purge turned on XSBPDQX. This indicates that the XSB Address was saved in PWARET6.
		...1 1111		*	Reserved for future use
472	(1D8)	CHARACTER	8	PWAWORK8	8 byte work area - used by IOSTARTM macro
472	(1D8)	ADDRESS	4	PWASVR8	Save area for REG8 during I/O Prevention processing
476	(1DC)	ADDRESS	4	PWASVR14	Save area for REG14 during I/O Prevention processing
480	(1E0)	ADDRESS	4	PWARET6	Return address for subrtn
480	(1E0)	ADDRESS	4	PWAXSB@	XSB Address where PDQX was set

Table 946. Structure PWA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
484	(1E4)	CHARACTER	32	PWAIPIBE	IPIB Extension
516	(204)	SIGNED	4	PWATQERC	Return code from ENQTQE
520	(208)	CHARACTER	128	PWATQE	TQE area (DWORD bdy)
10@0AD					
648	(288)	ADDRESS	4	PWAASCB	ASCB for xmem post
652	(28C)	CHARACTER	8	PWACLK1	STCK TOD clock storage
652	(28C)	CHARACTER	4	PWACLK1H	High Word TOD clock time
656	(290)	CHARACTER	4	PWACLK1L	Low Word TOD clock time
660	(294)	CHARACTER	8	PWACLK2	STCK TOD clock storage
660	(294)	UNSIGNED	4	PWACLK2H	High Word TOD clock time
664	(298)	UNSIGNED	4	PWACLK2L	Low Word TOD clock time
668	(29C)	UNSIGNED	4	PWACLKCC	Used for testing condition code on the STCK instruction
	11... ....			*	
	..11 ....			PWASTKCC	STCK Condition Code
668	(29C)	BITSTRING	3	*	
672	(2A0)	UNSIGNED	4	PWAFLAGS	Status Flags
	1... ....			PWATQEAC	Indicates that the TQE was set and requires a DEQueue
	.1... ....			PWARCVYH	A Purge Halt was issued out of purge's Estae routine
676	(2A4)	SIGNED	2	PWATASID	Address space ID for timer DIE
678	(2A6)	CHARACTER	32	PWAREMAPPED_AREA	Map PWAINTG and PWADECB_AREA
678	(2A6)	CHARACTER	32	PWAINTG	Interrogate parameter list
678	(2A6)	CHARACTER	32	PWADECB_AREA	DIE ECB and ECB List Area
678	(2A6)	CHARACTER	2	*	For Boundary alignment
680	(2A8)	UNSIGNED	4	PWADECB	Timer DIE ECB
684	(2AC)	CHARACTER	8	PWAEELST	ECB LIST
684	(2AC)	ADDRESS	4	PWAECEBENT(2)	Entries in ECB list
	1... ....			PWAECEBEOI	End of ECB list indicator
692	(2B4)	CHARACTER	18	*	Unused, so far
710	(2C6)	CHARACTER	2	PWARSV2	Reserved for future use
712	(2C8)	CHARACTER	0	*	Align TQE on DWORD bndry

Table 947. Structure PWAEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	248	PWAEXT	PWA ext
THE FOLLOWING FIELD CONFORMS TO STORAGE OBAINED FROM IOSVSMGR					
0	(0)	ADDRESS	4	PWANEXT	Pointer to next block
4	(4)	CHARACTER	8	PWA24ID	EBCDIC identifier.
12	(C)	ADDRESS	4	PWA31PTR	Pointer to 31 bit PWA
16	(10)	CHARACTER	72	PWAREGSV	REG SAVE AREA
16	(10)	SIGNED	4	PWAREG0	
20	(14)	SIGNED	4	PWAREG1	



Table 947. Structure PWAEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
24	(18)	SIGNED	4	PWAREG2	
28	(1C)	SIGNED	4	PWAREG3	
32	(20)	SIGNED	4	PWAREG4	
36	(24)	SIGNED	4	PWAREG5	
40	(28)	SIGNED	4	PWAREG6	
44	(2C)	SIGNED	4	PWAREG7	
48	(30)	SIGNED	4	PWAREG8	
52	(34)	SIGNED	4	PWAREG9	
56	(38)	SIGNED	4	PWAREGA	
60	(3C)	CHARACTER	20	PWAHISAV	
60	(3C)	SIGNED	4	PWAREGB	
64	(40)	SIGNED	4	PWAREGC	
68	(44)	SIGNED	4	PWAREGD	
72	(48)	SIGNED	4	PWAREGE	
76	(4C)	SIGNED	4	PWAREGF	
80	(50)	CHARACTER	8	*	REMAINDER OF SAVE AREA
88	(58)	CHARACTER	56	PWAIPIB	IPIB GOES HERE

Table 948. Structure @NM00026

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	4	*	Redefinition of IPIB address
0	(0)	CHARACTER	1	*	First byte is available as IPIB is a 24-bit address. The IPIB is contained in the PWA which was obtained in SP226 (SQA).
		1... ....		PWAIPIBV	IPIB address for current pass. On every pass through Purge, this bit gets switched to ensure a unique IOSIPIB address.
		.1.. ....		PWAIOPRV	When set in IOSIPIB, indicates that any IPIB created as a result of a PREVTIO request should have its associated IPIBCNT decremented.
		..1. ....		PWAIQSC	When set in IOSIPIB, indicates that any IPIB created as a result of a Purge Quiesce request should have its associated IPIBCNT decremented.
		...1 ....		PWAIOMEM	When set in IOSIPIB, indicates that any IPIB created as a result of a memory Purge Quiesce request should have its associated IPIBCNT decremented.
		.... 1...		PWADLLCK	When set, indicates that the local lock has been obtained by IOSPURGD.
		.... .1..		PWADMODE	When set, indicates that caller of IOSPURGD was in 24-bit AMODE.
		.... ..1.		PWADFRR	When set, indicates that IOSPURGD has obtained an FRR.
		.... ...1		*	Reserved.
1	(1)	ADDRESS	3	PWAIPIBA	24-bit address of IPIB

Table 949. Cross Reference for IPWA

Name	Offset	Hex Tag
PWA	0	
PWAASCB	288	
PWAASID	14E	
PWABRNCH	42	02
PWACKCC	29C	
PWACK1	28C	
PWACK1H	28C	
PWACK1L	290	
PWACK2	294	
PWACK2H	294	
PWACK2L	298	
PWACMS	153	40
PWACSAV1	70	
PWACSAV2	74	
PWACYCLE	44	08
PWADECB	2A8	
PWADECB_AREA	2A6	
PWADFRR	0	02
PWADIVIO	1D7	40
PWADLLCK	0	08
PWADMODE	0	04
PWADQSA	A8	
PWADQSB	AC	
PWADQSC	B0	
PWADQSD	B4	
PWADQSE	B8	
PWADQS3	8C	
PWADQS4	90	
PWADQS5	94	
PWADQS6	98	
PWADQS7	9C	
PWADQS8	A0	
PWADQS9	A4	
PWADSID	43	40
PWAEABSV	BC	
PWAEASID	86	
PWAEASPT	78	
PWAEBCR0	104	
PWAEBCR1	108	

Table 949. Cross Reference for IPWA (continued)

Name	Offset	Hex Tag
PWAEBR2	10C	
PWAEBCSV	104	
PWAECBENT	2AC	
PWAECBEOL	2AC	80
PWAECBSV	160	
PWAEDQSV	8C	
PWAELST	2AC	
PWAEMCPM	78	
PWAENQFL	152	10
PWAEPDPM	84	
PWAEPMPT	7C	
PWAERMTR	80	
PWAESRB	1A8	
PWAESTA	44	40
PWAESV13	158	
PWAETCB	88	
PWAEXT	0	
PWAE2S13	15C	
PWAFLAGS	2A0	
PWAFLG0	152	
PWAFLG1	153	
PWAFLG2	1D4	
PWAFLG3	1D7	
PWAFREE	42	01
PWAFRR	152	01
PWAGETMN	42	20
PWAHALTQ	38	
PWAHCNT	34	
PWAHECB	3C	
PWAHISAV	3C	
PWAID	0	
PWAINTG	2A6	
PWAINVAL	44	04
PWAIOCNT	42	08
PWAIOMEM	0	10
PWAIOPRV	0	40
PWAIQNLN	14C	
PWAIQNP	152	04
PWAIQSC	0	20

Table 949. Cross Reference for IPWA (continued)

Name	Offset	Hex Tag
PWAIOSP	152	40
PWAIPBA	1	
PWAIPIB	58	
PWAIPIBA	8	
PWAIPIBE	1E4	
PWAIPIBV	0	80
PWALOCAL	153	80
PWALOCKEDDEBS	42	40
PWAMASK	42	
PWAMEM	44	80
PWANEXT	0	
PWANODRV	42	04
PWANOENQ	43	20
PWANPPL	C	
PWANSWA	153	10
PWAPGCT	152	80
PWAPHWD	1D5	
PWAPHWDF	1D6	
PWAPHWDT	1D5	10
PWAPHWDWRITE	1D5	08
PWAPHWDZHPF	1D5	04
PWAPHWD1	1D5	80
PWAPHWD2	1D5	40
PWAPHWD3	1D5	20
PWAPRBST	1D4	80
PWAPRLNG	150	
PWAPRLPT	2C	
PWAPURGB	44	20
PWAPURGC	44	10
PWARCRTY	152	02
PWARCVYH	2A0	40
PWAREGA	38	
PWAREGB	3C	
PWAREGC	40	
PWAREGD	44	
PWAREGE	48	
PWAREGF	4C	
PWAREGSV	10	
PWAREG0	10	

Table 949. Cross Reference for IPWA (continued)

Name	Offset	Hex Tag
PWAREG1	14	
PWAREG2	18	
PWAREG3	1C	
PWAREG4	20	
PWAREG5	24	
PWAREG6	28	
PWAREG7	2C	
PWAREG8	30	
PWAREG9	34	
PWAREMAPPED_AREA	2A6	
PWARESTP	1D7	80
PWARETC	43	
PWARETC2	44	
PWARETRY	153	04
PWARET0	50	
PWARET1	54	
PWARET15	68	
PWARET2	58	
PWARET3	5C	
PWARET4	60	
PWARET5	64	
PWARET6	1E0	
PWARSV2	2C6	
PWASAVP	48	
PWASAVWD	30	
PWASDBF	152	08
PWASTATS	152	20
PWASTIME	42	10
PWASTKCC	29C	30
PWASTTCB	1D4	40
PWASVR14	1DC	
PWASVR8	1D8	
PWASYNCH	44	02
PWASYNEQ	44	01
PWASYNLK	153	20
PWATASID	2A4	
PWATCB	43	80
PWATQE	208	
PWATQEAC	2A0	80

Table 949. Cross Reference for IPWA (continued)

Name	Offset	Hex Tag
PWATQERC	204	
PWAUCBLK	4C	
PWAUCBP	6C	
PWAUSPM	153	02
PWAUSPM2	153	01
PWAWKUP	153	08
PWAWORK8	1D8	
PWAXSB	1D7	20
PWAXSB@	1E0	
PWA13BSV	154	
PWA24ID	4	
PWA24PTR	4	
PWA31PTR	C	

## IQE information

### IQE programming interface information

**ONLY** the following fields are part of the programming interface information:

- IQEIRB
- IQEPARAM
- IQETCB

### IQE heading information

<b>Common name:</b>	Interruption Queue Element
<b>Macro ID:</b>	IHAIQE
<b>DSECT name:</b>	IQE
<b>Owning component:</b>	Supervisor Control (SC1C5)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 253
<b>Size:</b>	24 bytes
<b>Created by:</b>	Caller of stage 2 exit effector
<b>Pointed to by:</b>	ASXBFIQE field of the ASXB data area ASXBLIQE field of the ASXB data area IQELINK field of the IQE data area RBIQE field of the IRB data area (first IQE) TAXELNK field of the TAXE data area (next IQE) TAXEIQE field of the TAXE data area (next available IQE) TCBIQE field of the TCB data area (EXTR scheduling IQE)
<b>Serialization:</b>	LOCAL lock

**Function:** Represents request to schedule an asynchronous exit routine via an IRB.  
CHANGE-ACTIVITY=  
\$D1=DCR0047 JBB2125 830409 PD162M: SET TIMER MULTIPLE TQE SUPPORT  
OY39934 - SAVEAREA AND PARAMETER STORAGE KEY SUPPORT FOR OY39382  
\$L1=DELAYIRB HBB77D0 191226 PD00XB: IQEPS

## IQE mapping

Table 950. Structure IQESECT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IQESECT	, IQEPTR
0	(0)	ADDRESS	4	IQELNK(0)	.WORD REFERENCE FOR IQELNKA
0	(0)	BITSTRING	1	IQESTAT1	.1 BYTE RESERVED
1	(1)	ADDRESS	3	IQELNKA	.ADDR NEXT IQE
4	(4)	ADDRESS	4	IQEPARAM	.PARMS TO BE PASSED TO ASYN EXIT RTN
8	(8)	ADDRESS	4	IQEIRB(0)	.WORD REFERENCE FOR IQEIRBA
8	(8)	BITSTRING	1	IQEFLAGS	.FLAG FIELD
		1... ..		IQEPURGE	"X'80'" .THIS IQE MUST NOT BE SCHEDULED
		.1.. ..		IQETIMER	"X'40'" .STIMER OR STIMER REQUEST
		...1 ..		IQEPS	"X'10'" .STIMER(M) PROBLEM STATE BIT
		.... 1111		IQEKEY	"X'0F'" .STIMER(M) KEY
		.... 1...		IQEUKEY	"X'08'" .IF ON, USER KEY
9	(9)	ADDRESS	3	IQEIRBA	.ADDR IRB TO BE SCHEDULED
12	(C)	ADDRESS	4	IQETCB(0)	.WORD REFERENCE FOR IQETCBA
12	(C)	BITSTRING	1	IQESTAT2	.1 BYTE RESERVED
13	(D)	ADDRESS	3	IQETCBA	.ADDR TCB ASSOCIATED WITH THIS IQE
THE FOLLOWING IS IN BEHALF OF S.M.F.					
16	(10)	ADDRESS	4	IQEDCB	.ADDR OF DCB
20	(14)	ADDRESS	4	IQEOUTLM	.ADDR OF OUTPUT LIMIT
24	(18)	CHARACTER	1	IQEEND(0)	.END OF IQE
24	(18)	X'18'	0	IQELEN	"IQEEND-IQESECT" .LENGTH OF IQE

Table 951. Cross Reference for IQE

Name	Offset	Hex	Tag
IQEDCB	10		
IQEEND	18		
IQEFLAGS	8		
IQEIRB	8		
IQEIRBA	9		
IQEKEY	8		F
IQELEN	18		18
IQELNK	0		

Table 951. Cross Reference for IQE (continued)

Name	Offset	Hex	Tag
IQELNKA	1		
IQEOUTLM	14		
IQEPARAM	4		
IQEPS	8		10
IQEPURGE	8		80
IQESECT	0		
IQESTAT1	0		
IQESTAT2	C		
IQETCB	C		
IQETCBA	D		
IQETIMER	8		40
IQEUKEY	8		8

## IQPYPFT information

### IQPYPFT programming interface information

IQPYPFT is a programming interface.

### IQPYPFT heading information

<b>Common name:</b>	PCIE Function Types (PFTs)
<b>Macro ID:</b>	IQPYPFT
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	PCIE (SCIQP)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	This control block defines the constants for the PCIE function types (PFTs).

### IQPYPFT mapping

Table 952. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		



Table 952. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
IQPYPFT_1;; PCIE Function Types					
0	(0)	X'0'	0	PFT_UNCLASSIFIED	"0" PCIE function type is unclassified
0	(0)	X'2'	0	PFT_ROCE	"2" RDMA over Converged Ethernet (RoCE) Express
0	(0)	X'3'	0	PFT_ZEDC	"3" zEnterprise Data Compression (zEDC)
0	(0)	X'5'	0	PFT_ISM	"5" Internal Shared Memory (ISM)
0	(0)	X'7'	0	PFT_ZHYPERLINK	"7" zHyperLink
0	(0)	X'A'	0	PFT_ROCE2	"10" RoCE Express 2
0	(0)	X'C'	0	PFT_NETH	"12" NETH
0	(0)	X'10'	0	PFT_AIU	"16" PCI AIU Adapter

## IRACPMB information

### IRACPMB programming interface information

IRACPMB is a programming interface.

### IRACPMB heading information

<b>Common name:</b>	Channel Path Measurement Block
<b>Macro ID:</b>	IRACPMB
<b>DSECT name:</b>	CPMB - Complete mapping CPMB_CHP_ENTRY - mapping for one channel path entry
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: 228 Key: Key 0 Residency: Above 16MB
<b>Size:</b>	CMC2 -- X'2000' bytes CMC2CMG2 -- X'0014' bytes CMC2CMG3 -- X'0014' bytes CMC2CMG4 -- X'0014' bytes CMC2CMG5 -- X'0014' bytes CPM2 -- X'2000' bytes CPM2CMG1 -- X'001C' bytes CPM2CMG2 -- X'001C' bytes CPM2CMG3 -- X'001C' bytes CPM2CMG4 -- X'001C' bytes CPM2CMG5 -- X'001C' bytes CPMB -- X'1000' bytes CPMB_CHP_ENTRY -- X'0008' bytes CPMX -- X'4000' bytes CPMXCMG2 -- X'0040' bytes CPMXCMG4 -- X'0040' bytes CPMXCMG5 -- X'0040' bytes

**Created by:** IEAVNP1F when the Channel Path Measurement Facility exists.  
IRASRCHM when switching between Compatability Mode and  
Extended Measurement Mode (IRARMI14) and vice versa.@WA38548

**Pointed to by:** Original Channel Path Measurement Format  
CMCTCPMB field of Channel Measurement Control Table (CMCT)  
Channel Measurement Characteristics Table  
CMCTMCM2 field of Channel Measurement Control  
Table (CMCT) @WA38548  
Extended Channel Path Measurement Format  
CMCTCPM2 field of Channel Measurement Control  
Table (CMCT) @WA38548  
Extended Channel Utilization Blocks  
CMCTCPMX field of Channel Measurement Control  
Table (CMCT) @OA22918

**Serialization:** None

**Function:**

MVS provides a Channel Path Measurement Facility (CPMF) which allows monitoring programs such as RMF to report channel utilization information. The CPMF presents the information in this control block, called the Channel Path Measurement Block (CPMB). CPMF can be operating in one of two modes as indicated by the CMCTCpmfMode of the CMCT (IRACMCT). The two modes of operation are CPMF Compatability Mode and Extended Measurement Mode. The system may switch between the two modes of operation at any time. @WA38548

The following applies to both Compatability Mode and Extended Measurement Mode:

When provided for in the machine, MVS automatically activates the CPMF at IPL and does not deactivate it unless an internal malfunction occurs. When such a malfunction occurs, MVS may reactivate the CPMF, and indicates this fact to the monitoring program via the CMCTCRCT field of the CMCT.

The system may switch between the two modes of operation at any time.

The CPMF updates the CPMB at least once every four seconds with information about the activity of the channel paths configured to the system or to the logical partition. When updating the CPMB, the CPMF does not update all channel path measurement entries simultaneously.

NOTE: The CPMF does not provide utilization information for byte multiplexer channel paths.

@WA38548

When CPMF is operating in Compatability Mode the following description applies.

When the central electronics complex (CEC) is in BASIC mode, the CPMB contains information about all channels configured in the system. When MVS runs in a logical partition of the CEC (LPAR mode), the CPMB contains information about the contribution of that logical partition to the total usage of each channel configured to that logical partition.

@WA38548

When CPMF is operating in Extended Measurement Mode the following description applies.

When the central electronics complex (CEC) is in BASIC mode, the CPM2 contains information about all channels configured in the system. When MVS runs in a logical partition of the CEC (LPAR mode), the CPMB contains information about the contribution of that logical partition to the total usage of each channel configured to that logical partition as well as the total usage of that channel path by all LPARs.

A Channel Measurement Characteristics (CMC2) table is built that describes the measurement group that each

channel path belongs to. The Channel Measurement Group determines the contents and format of the channel-utilization-entry for the associated channel path.

The Channel Path Measurement Extensions block (CPM2) contains a channel-utilization-entry for each possible channel path in the system. The contents and format of each channel-utilization-entry are determined by the channel-measurement-group contained in the CMC2 entry for the corresponding CHPID.

No sample count is stored by CPMF when running in Extended Measurement Mode. The system polls the channel subsystem every 20 seconds to discover if the facility is still active. If not active, the system will attempt to restart CPMF.

@WA38548

The Extended Channel Utilization block (CPMX) contains a channel-utilization-entry for each possible channel path in the system. The contents and format of each extended-channel-utilization-entry are determined by the channel-measurement-group contained in the CMC2 entry for the corresponding CHPID.

Extended measurements are supported when the E bit in the Channel Measurement Characteristics (CMC2) is set.

@OA22918

## IRACPMB mapping

Table 953. Structure CPMB

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CPMB	Channel Path Measurement Block
0	(0)	CHARACTER	4		Reserved
4	(4)	SIGNED	4	CPMB_SAMPLE_COUNT	CPMF sample count - updated whenever new data is stored in the CPMB. The CPMF increments this field by one each time it updates the CPMB. When the system activates or reactivates the CPMF, this field's initial value is undefined. This field wraps around to zero after it reaches 4,294,967,295. No alert will be issued if a wrap occurs. If this value does not change during a 20-second interval, the CPMF has stopped. If this field changes between two observations, either the CPMF operated normally, incrementing this field between the observations, or the system deactivated the CPMF, and then reactivated it.
8	(8)	CHARACTER	4088	CPMB_CHP_DATA	Channel path data, comprised of a list of 256 channel path measurement entries. Each entry (from 0 to 255) is associated with the same-numbered channel path.
8	(8)	X'1000'	0	CPMB_LEN	"*-CPMB"

Table 954. Structure CPMB\_CHP\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	CPMB_CHP_ENTRY	A channel path measurement entry
0	(0)	SIGNED	4	CPMB_CUM_CHP_BUSY	Cumulative channel path busy.

Table 954. Structure CPMB\_CHP\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Bit definitions:					
		1... ....		CPMB_CHP_ENTRY_NOT_VALID	"X'80'" Validity flag for the CHP entry. 0 - Entry is valid. 1 - Entry is not valid.
4	(4)	BITSTRING	3		CHP busy count data
4	(4)	BITSTRING	1	CPMB_CHP_FLAGS	Flags.
Bit definitions:					
		1... ....		CPMB_SHARED_CHANNEL	"X'80'" Shared Channel Indicator. 1 - The channel is shared. 0 - The channel is unshared.
5	(5)	SIGNED	3	CPMB_CUM_CHP_TIME	Cumulative channel path elapsed time.
5	(5)	X'8'	0	CPMB_CHP_ENTRY_LEN	"*-CPMB_CHP_ENTRY"

Table 955. Structure CMC2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2	Channel Measurement Characteristics for CPM2
0	(0)	CHARACTER	32	CMC2CHANMEASUREMENTCHARBLOCK	
Channel Measurement Characterisitics Block					
0	(0)	BITSTRING	1	CMC2FLAGS	Channel Measurement Characterisitics Flags
Bit definitions:					
		1... ....		CMC2NOTVALID	"X'80'" Not Valid - when 0 indicates that information is provided in this CMC block
		.1.. ....		CMC2SHAREDCHPID	"X'40'" Shared channel path
		..1. ....		CMC2EXTSUPPORT	"X'20'" When 1 indicates that extended-channel measurements are supported
1	(1)	CHARACTER	2		Reserved
3	(3)	BITSTRING	1	CMC2CHPID	Channel path ID
4	(4)	BITSTRING	1	CMC2MASKBYTE	Mask
Bit definitions:					
		1111 1...		CMC2CMCVALIDITYMASK	"X'F8'" CMC Validity mask, bits 0-4 correspond to words 3-7 of the channel measurements characteristics block. When 1, the corresponding word has meaning
5	(5)	BITSTRING	1	CMC2MISC	
Bit definitions:					
		.... 1111		CMC2CMGP	"X'0F'" Channel measurement group power. When non-zero, the CMC2SPEED value has to be multiplied by the factor 10 to the power of CMC2CMGP to get the speed in units of bits per second.

Table 955. Structure CMC2 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
6	(6)	BITSTRING	1	CMC2CMGQ	Channel measurement group qualifier
7	(7)	BITSTRING	1	CMC2CMG	Channel measurement group for this CHPID
8	(8)	CHARACTER	1		Reserved
9	(9)	BITSTRING	1	CMC2IOEN	Number of the I/O engine the measurement is for when the CMC2CMG field contains a value of 4 or 5, otherwise reserved
10	(A)	SIGNED	2	CMC2SPEED	Channel speed. If CMC2CMGP is zero, the value is the channel speed in units of 100 megabits per second. Otherwise, the value must be multiplied by 10**CMC2CMGP to get the speed in units of bits per second.
12	(C)	CHARACTER	20	CMC2DATA	Channel measurement characteristics data
Values for the CMC2CMG field, the channel measurement group types.					
12	(C)	X'1'	0	CMCCMG1	"1" Channel Measurement Group one
12	(C)	X'2'	0	CMCCMG2	"2" Channel Measurement Group two
12	(C)	X'3'	0	CMCCMG3	"3" Channel Measurement Group three
12	(C)	X'4'	0	CMCCMG4	"4" Channel Measurement Group four
12	(C)	X'5'	0	CMCCMG5	"5" Channel Measurement Group five
8192	(2000)	X'2000'	0	CMC2_LEN	"*-CMC2"

Table 956. Structure CMC2CMG2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG2	Channel Measurement Characteristics for channel measurement group 2
0	(0)	SIGNED	4	CMC2MAXBUSCYCLES	Maximum bus cycles per second
4	(4)	SIGNED	4	CMC2MAXCHANNELWORKUNITS	Maximum channel work units per second
8	(8)	SIGNED	4	CMC2MAXWRITEDATAUNITS	Maximum write data units per second
12	(C)	SIGNED	4	CMC2MAXREADDATAUNITS	Maximum read data units per second
16	(10)	SIGNED	4	CMC2DATAUNITSIZE	Data unit size
16	(10)	X'14'	0	CMC2CMG2_LEN	"*-CMC2CMG2"

Table 957. Structure CMC2CMG3

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG3	Channel Measurement Characteristics for channel measurement group 3
0	(0)	SIGNED	4	CMC3DATAUNITSIZE	Data unit size
4	(4)	SIGNED	4	CMC3DATAUNITSIZECPC	Data unit size CPC
8	(8)	SIGNED	4	CMC3MESSAGEUNITSIZE	Message unit size
12	(C)	SIGNED	4	CMC3MESSAGEUNITSIZECPC	Message unit size CPC
16	(10)	CHARACTER	4		Reserved
16	(10)	X'14'	0	CMC2CMG3_LEN	"*-CMC2CMG3"

Table 958. Structure CMC2CMG4

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG4	Channel Measurement Characteristics for channel measurement group 4
0	(0)	SIGNED	4	CMC4MAXBUSCYCLES	
4	(4)	SIGNED	4	CMC4MAXCHANNELWORKUNITS	
8	(8)	SIGNED	4	CMC4MAXWRITEDATAUNITS	
12	(C)	SIGNED	4	CMC4MAXREADDATAUNITS	
16	(10)	BITSTRING	1	CMC4NUMOFIOECORES	
17	(11)	SIGNED	3	CMC4DATAUNITSIZE	
17	(11)	X'14'	0	CMC2CMG4_LEN	"*-CMC2CMG4"

Table 959. Structure CMC2CMG5

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG5	Channel Measurement Characteristics for channel measurement group 5
0	(0)	SIGNED	4	CMC5MAXBUSCYCLES	
4	(4)	SIGNED	4	CMC5MAXCHANNELWORKUNITS	
8	(8)	SIGNED	4	CMC5MAXWRITEDATAUNITS	
12	(C)	SIGNED	4	CMC5MAXREADDATAUNITS	
16	(10)	BITSTRING	1	CMC5NUMOFIOECORES	
17	(11)	SIGNED	3	CMC5DATAUNITSIZE	
17	(11)	X'14'	0	CMC2CMG5_LEN	"*-CMC2CMG5"

Table 960. Structure CPM2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2	Channel Path Measurement Block - format 2
0	(0)	CHARACTER	32	CPM2CHANNELUTILIZATIONENTRY	
Channel Utilization Entry					
0	(0)	BITSTRING	1	CPM2CHANNELUTILINFOVALIDITYMASK	Channel utilization info validity mask, bit positions 0-7 correspond to words 0-7 of this channel utilization entry
1	(1)	SIGNED	3	CPM2TIMESTAMP	Time stamp indicating when data was last stored in this CUE, 128 microsecond granularity
4	(4)	CHARACTER	28	CPM2DATA	Channel measurement group data
8192	(2000)	X'2000'	0	CPM2_LEN	"*-CPM2"

Table 961. Structure CPM2CMG1

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG1	Channel Measurement Group 1
0	(0)	SIGNED	4	CMG1TOTALCHANNELBUSYTIME	Channel Path Busy Time, total for the CHPID
4	(4)	SIGNED	4	CMG1LPARCHANNELBUSYTIME	Channel Path Busy Time, just for this LPAR
8	(8)	CHARACTER	20		Reserved

Table 961. Structure CPM2CMG1 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	X'1C'	0	CPM2CMG1_LEN	"*-CPM2CMG1"

Table 962. Structure CPM2CMG2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG2	Channel Measurement Group 2
0	(0)	SIGNED	4	CMG2TOTALBUSCYCLECOUNT	Count of Bus Cycles, total for the CHPID
4	(4)	SIGNED	4	CMG2TOTALCHANNELWORKUNITCOUNT	Count of Channel Work Units, total for the CHPID
8	(8)	SIGNED	4	CMG2LPARCHANNELWORKUNITCOUNT	Count of Channel Work Units, just for this LPAR
12	(C)	SIGNED	4	CMG2TOTALWRITEDATAUNITS	Count of Data Units Written, total for the CHPID
16	(10)	SIGNED	4	CMG2LPARWRITEDATAUNITS	Count of Data Units Written, just for this LPAR
20	(14)	SIGNED	4	CMG2TOTALREADDATAUNITS	Count of Data Units Read, total for the CHPID
24	(18)	SIGNED	4	CMG2LPARREADDATAUNITS	Count of Data Units Read, just for this LPAR
24	(18)	X'1C'	0	CPM2CMG2_LEN	"*-CPM2CMG2"

Table 963. Structure CPM2CMG3

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG3	Channel Measurement Group 3
0	(0)	SIGNED	4	CMG3MESSAGEUNITSENT	Count of message units sent by programs
4	(4)	SIGNED	4	CMG3MESSAGEUNITSENTCPC	Count of message units sent by programs from all logical partitions using this channel path
8	(8)	SIGNED	4	CMG3UNSUCCATTEMPTSTOSEND	Unsuccessful attempts to send messages except when the attempts failed due to unavailable buffers in the receiving log. partition
12	(C)	SIGNED	4	CMG3UNAVAILRECEIVEBUFFERS	Count of unavailable receive buffers in the issuing partition
16	(10)	SIGNED	4	CMG3UNAVAILRECEIVEBUFFERS CPC	Unavailable receive buffers in the target partition including all unsucc. attempts from all partitions using the channel path
20	(14)	SIGNED	4	CMG3DATAUNITSENT	Number of data units sent by programs in the issuing logical partition
24	(18)	SIGNED	4	CMG3DATAUNITSENTCPC	Number of data units sent by all logical partitions which have access to the channel path
24	(18)	X'1C'	0	CPM2CMG3_LEN	"*-CPM2CMG3"

Table 964. Structure CPM2CMG4

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG4	Channel Measurement Group 4



Table 964. Structure CPM2CMG4 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	SIGNED	4	CMG4TOTALBUSCYCLECOUNT	
4	(4)	SIGNED	4	CMG4TOTALCHANNELWORKUNITCOUNT	
8	(8)	SIGNED	4	CMG4LPARCHANNELWORKUNITCOUNT	
12	(C)	SIGNED	4	CMG4TOTALWRITEDATAUNITS	
16	(10)	SIGNED	4	CMG4LPARWRITEDATAUNITS	
20	(14)	SIGNED	4	CMG4TOTALREADDATAUNITS	
24	(18)	SIGNED	4	CMG4LPARREADDATAUNITS	
24	(18)	X'1C'	0	CPM2CMG4_LEN	"*-CPM2CMG4"

Table 965. Structure CPM2CMG5

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG5	Channel Measurement Group 5
0	(0)	SIGNED	4	CMG5TOTALBUSCYCLECOUNT	
4	(4)	SIGNED	4	CMG5TOTALCHANNELWORKUNITCOUNT	
8	(8)	SIGNED	4	CMG5LPARCHANNELWORKUNITCOUNT	
12	(C)	SIGNED	4	CMG5TOTALWRITEDATAUNITS	
16	(10)	SIGNED	4	CMG5LPARWRITEDATAUNITS	
20	(14)	SIGNED	4	CMG5TOTALREADDATAUNITS	
24	(18)	SIGNED	4	CMG5LPARREADDATAUNITS	
24	(18)	X'1C'	0	CPM2CMG5_LEN	"*-CPM2CMG5"

Table 966. Structure CPMX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMX	Extended Channel Utilization Block
0	(0)	CHARACTER	64	CPMXCHANNELUTILIZATIONENTRY	
Extended Channel Utilization Entry					
0	(0)	CHARACTER	64	CPMXDATA	Extended channel measurement group data
16384	(4000)	X'4000'	0	CPMX_LEN	"*-CPMX"

Table 967. Structure CPMXCMG2

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMXCMG2	CMG=2 extended data
0	(0)	SIGNED	4	CPMXTOTALCOUNTOPS	
4	(4)	SIGNED	4	CPMXTOTALCOUNTOPSDEFERRED	
8	(8)	CHARACTER	8	CPMXSUMMATIONCOUNTOPS	
16	(10)	SIGNED	4	CPMXTOTALCOUNTOPSFCDX	
20	(14)	SIGNED	4	CPMXTOTALCOUNTOPSDEFERREDFCDX	
24	(18)	CHARACTER	8	CPMXSUMMATIONCOUNTOPSFCDX	
32	(20)	CHARACTER	32	CPMXRESERVED	
32	(20)	X'40'	0	CPMXCMG2_LEN	"*-CPMXCMG2"

Table 968. Structure CPMXCMG4

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMXCMG4	CMG=4 extended data
0	(0)	SIGNED	4	CPMX4CHANNELEXEETIME	
4	(4)	SIGNED	4	CPMX4TOTALIOEEXEETIME	
8	(8)	CHARACTER	56	CPMX4RESERVED	
8	(8)	X'40'	0	CPMXCMG4_LEN	"*-CPMXCMG4"

Table 969. Structure CPMXCMG5

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMXCMG5	CMG=5 extended data
0	(0)	SIGNED	4	CPMX5CHANNELEXEETIME	
4	(4)	SIGNED	4	CPMX5TOTALIOEEXEETIME	
8	(8)	SIGNED	4	CPMX5TOTALCOUNTOPS	
12	(C)	SIGNED	4	CPMX5TOTALCOUNTOPSDEFERRED	
16	(10)	CHARACTER	8	CPMX5SUMMATIONCOUNTOPS	
24	(18)	SIGNED	4	CPMX5TOTALCOUNTOPSFCX	
28	(1C)	SIGNED	4	CPMX5TOTALCOUNTOPSDEFERREDFCX	
32	(20)	CHARACTER	8	CPMX5SUMMATIONCOUNTOPSFCX	
40	(28)	CHARACTER	24	CPMX5RESERVED	
40	(28)	X'40'	0	CPMXCMG5_LEN	"*-CPMXCMG5"

Table 970. Cross Reference for IRACPMB

Name	Offset	Hex	Tag
CMCCMG1	C		1
CMCCMG2	C		2
CMCCMG3	C		3
CMCCMG4	C		4
CMCCMG5	C		5
CMC2	0		
CMC2_LEN	2000		2000
CMC2CHANMEASUREMENTCHARBLOCK	0		
CMC2CHPID	3		
CMC2CMCVALIDITYMASK	4		F8
CMC2CMG	7		
CMC2CMGP	5		F
CMC2CMGQ	6		
CMC2CMG2	0		
CMC2CMG2_LEN	10		14
CMC2CMG3	0		
CMC2CMG3_LEN	10		14
CMC2CMG4	0		
CMC2CMG4_LEN	11		14

Table 970. Cross Reference for IRACPMB (continued)

Name	Offset	Hex Tag
CMC2CMG5	0	
CMC2CMG5_LEN	11	14
CMC2DATA	C	
CMC2DATAUNITSIZE	10	
CMC2EXTSUPPORT	0	20
CMC2FLAGS	0	
CMC2IOEN	9	
CMC2MASKBYTE	4	
CMC2MAXBUSCYCLES	0	
CMC2MAXCHANNELWORKUNITS	4	
CMC2MAXREADDATAUNITS	C	
CMC2MAXWRITEDATAUNITS	8	
CMC2MISC	5	
CMC2NOTVALID	0	80
CMC2SHAREDCHPID	0	40
CMC2SPEED	A	
CMC3DATAUNITSIZE	0	
CMC3DATAUNITSIZECPC	4	
CMC3MESSAGEUNITSIZE	8	
CMC3MESSAGEUNITSIZECPC	C	
CMC4DATAUNITSIZE	11	
CMC4MAXBUSCYCLES	0	
CMC4MAXCHANNELWORKUNITS	4	
CMC4MAXREADDATAUNITS	C	
CMC4MAXWRITEDATAUNITS	8	
CMC4NUMOFIOECORES	10	
CMC5DATAUNITSIZE	11	
CMC5MAXBUSCYCLES	0	
CMC5MAXCHANNELWORKUNITS	4	
CMC5MAXREADDATAUNITS	C	
CMC5MAXWRITEDATAUNITS	8	
CMC5NUMOFIOECORES	10	
CMG1LPARCHANNELBUSYTIME	4	
CMG1TOTALCHANNELBUSYTIME	0	
CMG2LPARCHANNELWORKUNITCOUNT	8	
CMG2LPARREADDATAUNITS	18	
CMG2LPARWRITEDATAUNITS	10	
CMG2TOTALBUSCYCLECOUNT	0	
CMG2TOTALCHANNELWORKUNITCOUNT	4	

Table 970. Cross Reference for IRACPMB (continued)

Name	Offset	Hex Tag
CMG2TOTALREADDATAUNITS	14	
CMG2TOTALWRITEDATAUNITS	C	
CMG3DATAUNITSENT	14	
CMG3DATAUNITSENTCPC	18	
CMG3MESSAGEUNITSENT	0	
CMG3MESSAGEUNITSENTCPC	4	
CMG3UNAVAILRECEIVEBUFFERS	C	
CMG3UNAVAILRECEIVEBUFFERSPC	10	
CMG3UNSUCCATTEMPTSTOSEND	8	
CMG4LPARCHANNELWORKUNITCOUNT	8	
CMG4LPARREADDATAUNITS	18	
CMG4LPARWRITEDATAUNITS	10	
CMG4TOTALBUSCYCLECOUNT	0	
CMG4TOTALCHANNELWORKUNITCOUNT	4	
CMG4TOTALREADDATAUNITS	14	
CMG4TOTALWRITEDATAUNITS	C	
CMG5LPARCHANNELWORKUNITCOUNT	8	
CMG5LPARREADDATAUNITS	18	
CMG5LPARWRITEDATAUNITS	10	
CMG5TOTALBUSCYCLECOUNT	0	
CMG5TOTALCHANNELWORKUNITCOUNT	4	
CMG5TOTALREADDATAUNITS	14	
CMG5TOTALWRITEDATAUNITS	C	
CPMB	0	
CPMB_CHP_DATA	8	
CPMB_CHP_ENTRY	0	
CPMB_CHP_ENTRY_LEN	5	8
CPMB_CHP_ENTRY_NOT_VALID	0	80
CPMB_CHP_FLAGS	4	
CPMB_CUM_CHP_BUSY	0	
CPMB_CUM_CHP_TIME	5	
CPMB_LEN	8	1000
CPMB_SAMPLE_COUNT	4	
CPMB_SHARED_CHANNEL	4	80
CPMX	0	
CPMX_LEN	4000	4000
CPMXCHANNELUTILIZATIONENTRY	0	
CPMXCMG2	0	
CPMXCMG2_LEN	20	40

Table 970. Cross Reference for IRACPMB (continued)

Name	Offset	Hex Tag
CPMXCMG4	0	
CPMXCMG4_LEN	8	40
CPMXCMG5	0	
CPMXCMG5_LEN	28	40
CPMXDATA	0	
CPMXRESERVED	20	
CPMXSUMMATIONCOUNTOPS	8	
CPMXSUMMATIONCOUNTOPSFCX	18	
CPMXTOTALCOUNTOPS	0	
CPMXTOTALCOUNTOPSDEFERRED	4	
CPMXTOTALCOUNTOPSDEFERREDFCX	14	
CPMXTOTALCOUNTOPSFCX	10	
CPMX4CHANNELEXECTIME	0	
CPMX4RESERVED	8	
CPMX4TOTALIOEEXECTIME	4	
CPMX5CHANNELEXECTIME	0	
CPMX5RESERVED	28	
CPMX5SUMMATIONCOUNTOPS	10	
CPMX5SUMMATIONCOUNTOPSFCX	20	
CPMX5TOTALCOUNTOPS	8	
CPMX5TOTALCOUNTOPSDEFERRED	C	
CPMX5TOTALCOUNTOPSDEFERREDFCX	1C	
CPMX5TOTALCOUNTOPSFCX	18	
CPMX5TOTALIOEEXECTIME	4	
CPM2	0	
CPM2_LEN	2000	2000
CPM2CHANNELUTILINFOVALITYMASK	0	
CPM2CHANNELUTILIZATIONENTRY	0	
CPM2CMG1	0	
CPM2CMG1_LEN	8	1C
CPM2CMG2	0	
CPM2CMG2_LEN	18	1C
CPM2CMG3	0	
CPM2CMG3_LEN	18	1C
CPM2CMG4	0	
CPM2CMG4_LEN	18	1C
CPM2CMG5	0	
CPM2CMG5_LEN	18	1C
CPM2DATA	4	

Table 970. Cross Reference for IRACPMB (continued)

Name	Offset	Hex Tag
CPM2TIMESTAMP	1	

## IRAECEMB information

### IRAECEMB programming interface information

IRAECEMB is a programming interface.

### IRAECEMB heading information

<b>Common name:</b>	Extended Channel Measurement Block mapping
<b>Macro ID:</b>	IRAECEMB
<b>DSECT name:</b>	ECMB
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	ECMB Offset: 0 Length: 4
<b>Storage attributes:</b>	Key: 0 FREQUENCY: One ECMB for every DASD (including aliases) and tape device that is connected to a subchannel
<b>Size:</b>	ECMBHEADER -- X'0040' bytes IRAECEMB -- X'0080' bytes ECMB -- X'0040' bytes
<b>Created by:</b>	IEAVNP1F
<b>Pointed to by:</b>	SCHCMBAD (real address) - To address an ECMB, the following must be done: - CMCTECMBAlet contains the ALET of the data space containing the ECMBs. This ALET must be loaded into an access register and a SAC instruction must be issued to switch into access register mode. - CMCTECMBPtr contains the address of the array of ECMB entries within the data space. This address may be zero since the data space may start at address zero. There is an array of up 65536 entries for each subchannel set. The first element in each array contains the ECMB header, which is mapped by the ECMBHeader data structure. The ECMB header corresponds to ECMB array index zero within the subchannel set. CMCTECMBhighMBIs contains the highest assigned ECMB index within each of the subchannel sets. The index for the ECMB entry assigned to the device is in the UCBMBI field of that device's UCB. To compute the ECMB address for that device, multiply the subchannel set id in UCBSSID by 65536 and add that to UCBMBI. Then multiply the result by the size of an ECMB entry (64 bytes) and add CMCTECMBPtr. That is: $\text{ECMBPtr} = \text{CMCTECMBPtr} + 64 * (\text{UCBSSID} * 65536 + \text{UCBMBI})$

**Serialization:** None

**Function:** IRAECMB maps the Extended Channel Measurement Block.

## IRAECMB mapping

Table 971. Structure IRAECMB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAECMB	Extended Channel Measurement Block
0	(0)	CHARACTER	64	ECMBHEADER	Extended Channel Measurement Block header
0	(0)	CHARACTER	4	ECMBNAME	Acronym 'ECMB'
4	(4)	SIGNED	4	ECMBLENGTH	Length of ECMB array
8	(8)	BITSTRING	1	ECMBBITS	Bits
Bit definitions:					
		11.. ....		ECMBSUBCHANNELSET	"X'C0'" Subchannel set ID
9	(9)	CHARACTER	55		Reserved
64	(40)	CHARACTER	64	ECMBENTRY	Array of ECMB entries
64	(40)	X'80'	0	IRAECMB_LEN	"*-IRAECMB"

Table 972. Structure ECMB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECMB	Extended Channel Measurement Block
0	(0)	SIGNED	4	ECMBSSCHRSCHCOUNT	Number of SSCH/RSCH instructions
4	(4)	SIGNED	4	ECMBSAMPLECOUNT	Number of SSCH/RSCH instructions for which data was collected
8	(8)	SIGNED	4	ECMBCONNECTTIME	Summation of device connect times
12	(C)	SIGNED	4	ECMBPENDINGTIME	Summation of SSCH/RSCH request pending times
16	(10)	SIGNED	4	ECMBDISCONNECTTIME	Summation of subchannel disconnect times
20	(14)	SIGNED	4	ECMBCUQUEUEINGTIME	Summation of control unit queueing times
24	(18)	SIGNED	4	ECMBDEVICEACTIVEONLYTIME	Summation of device- active-only times
28	(1C)	SIGNED	4	ECMBDEVICEBUSYTIME	Summation of device busy times
32	(20)	SIGNED	4	ECMBINITIALCMDRESPTIME	Initial command response time
36	(24)	SIGNED	4	ECMBINTERRUPTDELAYTIME	Interrupt delay time
40	(28)	CHARACTER	24		Reserved
40	(28)	X'C3D4C2'	0	ECMBECMB	"C'ECMB'" Acronym for ECMBname
40	(28)	X'40'	0	ECMB_LEN	"*-ECMB"

Table 973. Cross Reference for IRAECMB

Name	Offset	Hex Tag
ECMB	0	
ECMB_LEN	28	40
ECMBBITS	8	
ECMBCONNECTTIME	8	

Table 973. Cross Reference for IRAECMB (continued)

Name	Offset	Hex Tag
ECMBCUQUEUEINGTIME	14	
ECMBDEVICEACTIVEONLYTIME	18	
ECMBDEVICEBUSYTIME	1C	
ECMBDISCONNECTTIME	10	
ECMBECMB	28	C3D4C2
ECMBENTRY	40	
ECMBHEADER	0	
ECMBINITIALCMDRESPTIME	20	
ECMBINTERRUPTDELAYTIME	24	
ECMBLENGTH	4	
ECMBNAME	0	
ECMBPENDINGTIME	C	
ECMBSAMPLECOUNT	4	
ECMBSSCHRSCHCOUNT	0	
ECMBSUBCHANNELSET	8	C0
IRAECMB	0	
IRAECMB_LEN	40	80

## IRAENF55 information

### IRAENF55 programming interface information

IRAENF55 is a programming interface.

### IRAENF55 heading information

<b>Common name:</b>	ENF signal 55 parameters	
<b>Macro ID:</b>	IRAENF55	
<b>DSECT name:</b>	ENF55	
<b>Owning component:</b>	SRM (SC1CX)	
<b>Eye-catcher ID:</b>	'IRAENF55' Offset: 0 Length: 8	
<b>Storage attributes:</b>	Subpool: 245 Residency: Above 16M line	
<b>Size:</b>	200 bytes @LHISTOC	
<b>Created by:</b>	IRASTFXS	@LHISTOC
	IRASTAUX	@LPSMONA
	IRASTSCM	@LPSMONA
	IRARMRMR	@LPSMONA
<b>Pointed to by:</b>	N/A	



**Serialization:** SRM LOCK

**Function:** Contains parameters for ENF signal 55  
The ENF 55 signal issues events of the following types and orders:

- Pageable Storage shortages
- ENF55QLF\_REAL\_CRITICAL\_SHORTAGE
- ENF55QLF\_REAL\_SHORTAGE
- ENF55QLF\_REAL\_SHORTAGE\_RELIEVED
- ENF55QLF\_REAL\_APPL\_WARNING
- ENF55QLF\_REAL\_APPL\_WARNING\_RELIEVED
- ENF55QLF\_REAL\_WARNING
- Auxiliary Storage shortages
- ENF55QLF\_AUX\_CRITICAL\_SHORTAGE
- ENF55QLF\_AUX\_SHORTAGE
- ENF55QLF\_AUX\_SHORTAGE\_RELIEVED
- ENF55QLF\_AUX\_APPL\_WARNING
- ENF55QLF\_AUX\_APPL\_WARNING\_RELIEVED
- ENF55QLF\_AUX\_WARNING
- ENF55QLF\_SCM\_HIGH\_USAGE @LFLASHA
- ENF55QLF\_SCM\_HIGH\_USAGE\_RELIEVED @LFLASHA
- Available Frame Queue Shortages
- ENF55QLF\_AFQ\_SHORTAGE
- ENF55QLF\_AFQ\_SHORTAGE\_RELIEVED
- @LLENHA
- Preferred Frame Queue Shortages
- ENF55QLF\_PREF\_SHORTAGE
- ENF55QLF\_PREF\_SHORTAGE\_RELIEVED
- @LPSMONA

## IRAENF55 mapping

Table 974. Structure ENF55

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF55	ENF signal 55 parameters
0	(0)	CHARACTER	8	ENF55ID	Control Block ID - "IRAENF55"
8	(8)	SIGNED	2	ENF55LEN	Parameter List Length
10	(A)	BITSTRING	1	ENF55VER	Parameter List Version
11	(B)	BITSTRING	1	ENF55TYP	Type of frame / slot needed See possible type constants below Pageable shortage / warning 4 = Pageable frames in between the 16M and 2G lines 3 = Pageable frames below 16M line 2 = Pageable frames in real storage 1 = PTA frames (DREF + Fixed pages) in processor storage 0 = Not in a shortage @64BITSRM Type of slots needed to end Auxiliary shortage / warning 1 = AUX slots needed 0 = Not in a shortage Preferred shortage situation 4 = Preferred frames in between the 16M and 2G lines 3 = Preferred frames below 16M line 2 = Preferred frames in real storage 0 = Not in a shortage
12	(C)	BITSTRING	4	ENF55QLF	Qualifier Code See possible qualifier constants below
16	(10)	SIGNED	2	ENF55FRM	Obsolete (but still maintained) use ENF55FramesNeeded instead
18	(12)	SIGNED	2	ENF55RSV1	Reserved
20	(14)	SIGNED	4	ENF55FRAMESNEEDED	Number of frames needed to end the shortage situation. (valid for qualifier code x'80000000')

Table 974. Structure ENF55 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
20	(14)	SIGNED	4	ENF55SLOTSNEEDED	Number of slots needed to end the shortage situation. (valid for qualifier code x'08000000' and qualifier code x'04000000')
24	(18)	CHARACTER	8	ENF55TIMESTAMP	Time when the ENF signal got issued (STCK format)
32	(20)	SIGNED	2	ENF55RSV4	Reserved
<p>When the system is in a pageable storage shortage, the address space elements get filled with the top causer of the current shortage. The field ENF55NoOfAsidElements contains the number of valid address space elements, mapped via ENF55AsidElement.</p>					
34	(22)	SIGNED	2	ENF55ASIDELEMENTOFFSET	Offset to the Asid element section
36	(24)	SIGNED	2	ENF55ASIDELEMENTLENGTH	Length of a single Asid element
38	(26)	SIGNED	2	ENF55N00FASIDELEMENTS	Number of elements elements in the Asid section
40	(28)	CHARACTER	1	ENF55FIXEDEND(0)	Begin of dynamic sections
40	(28)	X'28'	0	ENF55_LEN	"*-ENF55"

Table 975. Structure ENF55ASIDELEMENT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF55ASIDELEMENT	Address space element
0	(0)	SIGNED	2	ENF55ASID	Address space ID of the address space which is a preferred candidate
2	(2)	SIGNED	2	ENF55RSV10	reserved
4	(4)	SIGNED	4	ENF55FRAMES	Number of frames the address space has fixed in the shortage area
4	(4)	SIGNED	4	ENF55SLOTS	Number of slots the address space has allocated on AUX
Constants					
4	(4)	X'3'	0	ENF55TYP_REAL_BELOW_16M	"3" Pageable Storage Warning / Shortage in below 16M
4	(4)	X'4'	0	ENF55TYP_REAL_BETWEEN_16M_AND_2G	"4" Pageable Storage Warning / Shortage in between 16M and 2G
4	(4)	X'2'	0	ENF55TYP_REAL_ALL_REAL	"2" Pageable Storage Warning / Shortage in all real
4	(4)	X'1'	0	ENF55TYP_REAL_FIXED_PLUS_DREF	"1" Pageable Storage Warning / Shortage in fixed pages plus DREF
4	(4)	X'0'	0	ENF55TYP_REAL_NO_SHORTAGE	"0" No Shortage exists
4	(4)	X'1'	0	ENF55TYP_AUX_SLOTS_NEEDED	"1" Auxiliary Storage Shortage / Warning. Slots are needed
4	(4)	X'0'	0	ENF55TYP_AUX_NO_SLOTS_NEEDED	"0" No slots needed
4	(4)	X'3'	0	ENF55TYP_PREF_BELOW_16M	"3" Preferred Frame Queue Shortage in below 16M
4	(4)	X'4'	0	ENF55TYP_PREF_BETWEEN_16M_AND_2G	"4" Preferred Frame Queue Shortage in between 16M and 2G

Table 975. Structure ENF55ASIDELEMENT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	X'2'	0	ENF55TYP_PREF_ALL_REAL	"2" Preferred Frame Queue Shortage in all real
4	(4)	X'0'	0	ENF55TYP_PREF_NO_SHORTAGE	"0" No Shortage exists
ENF 55 Qualifier Constants (ENF55QLF)					
		....		ENF55QLF_REAL_SHORTAGE	"X'80000000'" Pageable Storage Shortage Too many fixed frames in the storage. See ENF55TYP for the storage area. Issued when IRA400E occurs
		....		ENF55QLF_REAL_SHORTAGE_RELIEVED	"X'40000000'" Pageable Storage Shortage relieved Issued when IRA402I occurs
		....		ENF55QLF_REAL_WARNING	"X'20000000'" Pageable Storage Warning There are many fixed frames in the storage. See ENF55TYP for the storage area Issued when IRA405I occurs
		....		ENF55QLF_REAL_CRITICAL_SHORTAGE	"X'10000000'" Critical Pageable Storage Shortage Too many fixed frames in the storage. See ENF55TYP for the storage area. Issued when IRA401E occurs
		....		ENF55QLF_AUX_CRITICAL_SHORTAGE	"X'08000000'" Critical Auxiliary Storage Shortage Too many slots allocated on the AUX subsystem. Issued when IRA201E occurs
		....		ENF55QLF_AUX_SHORTAGE	"X'04000000'" Auxiliary Storage Shortage Too many slots allocated on the AUX subsystem. Issued when IRA200E occurs
		....		ENF55QLF_AUX_SHORTAGE_RELIEVED	"X'02000000'" Auxiliary Storage Shortage relieved Issued when IRA202I occurs
		....		ENF55QLF_AUX_WARNING	"X'01000000'" Auxiliary Storage Warning There are many slots allocated on the AUX subsystem Issued when IRA205I occurs
4	(4)	BITSTRING	0	ENF55QLF_REAL_APPL_WARNING	"X'00800000'" Pageable Storage Application Warning 5% below a pageable storage shortage level. See ENF55TYP for the storage area.
4	(4)	BITSTRING	0	ENF55QLF_REAL_APPL_WARNING_RELIEVED	"X'00400000'" Pageable Storage Application Warning relieved
4	(4)	BITSTRING	0	ENF55QLF_AUX_APPL_WARNING	"X'00200000'" Auxiliary Storage Application Warning 5% below a auxiliary storage shortage level.
4	(4)	BITSTRING	0	ENF55QLF_AUX_APPL_WARNING_RELIEVED	"X'00100000'" Auxiliary Storage Application Warning relieved
4	(4)	BITSTRING	0	ENF55QLF_SCM_HIGH_USAGE	"X'00040000'" High usage of Flash Storage. Issued when IRA250I occurs
4	(4)	BITSTRING	0	ENF55QLF_SCM_HIGH_USAGE_RELIEVED	"X'00020000'" High usage of Flash Storage relieved. Issued when IRA252I occurs

Table 975. Structure ENF55ASIDELEMENT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	BITSTRING	0	ENF55QLF_AFQ_SHORTAGE	"X'00008000'" Available Frame Queue Shortage Not enough frames on the available frame queue
4	(4)	BITSTRING	0	ENF55QLF_AFQ_SHORTAGE_RELIEVED	"X'00004000'" Available Frame Queue Shortage relieved
4	(4)	BITSTRING	0	ENF55QLF_PREF_SHORTAGE	"X'00002000'" Preferred Frame Queue Shortage Not enough frames on the preferred frame queue. See ENF55TYP for the storage area.
4	(4)	BITSTRING	0	ENF55QLF_PREF_SHORTAGE_RELIEVED	"X'00001000'" Preferred Frame Queue Shortage relieved
	....			ENF55QLF_SHORTAGE_RECOGNIZED	"X'80000000'" Obsolete, use new constant above
	....			ENF55QLF_SHORTAGE_RELIEVED	"X'40000000'" Obsolete, use new constant above
4	(4)	BITSTRING	0	ENF55QLF_HIGH_SCM_USAGE	"X'00040000'" Obsolete, use new equate above
4	(4)	BITSTRING	0	ENF55QLF_HIGH_SCM_USAGE_RELIEVED	"X'00020000'" Obsolete, use new equate above
4	(4)	X'1'	0	ENF55_VERSION1	"1" Version 1 constant
4	(4)	X'2'	0	ENF55_VERSION2	"2" Version 2 constant
4	(4)	X'2'	0	ENF55_LATEST_VERSION	"2" Latest version constant
4	(4)	X'D9C1C5'	0	ENF55_EYECATCHER_0T03	"C'IRAE'" This is the first 4-byte segment of an 8-byte constant. Storage due to fixed storage - relieved
4	(4)	X'C6F5F5'	0	ENF55_EYECATCHER_4T07	"C'NF55'" This is the second 4-byte segment of an 8-byte constant. Storage due to fixed storage - relieved
4	(4)	X'14'	0	ENF55_MAXNO0FASIDELEMENTS	"20" Maximal number of elements in the address space list LHI0A
4	(4)	X'C8'	0	ENF55_LENGTH	"200" Length of IRAENF55
4	(4)	X'8'	0	ENF55_ASIDELEMENTLENGTH	"8" Length of a AsidList entry
4	(4)	X'8'	0	ENF55ASIDELEMENT_LEN	"*-ENF55AsidElement"

Table 976. Cross Reference for IRAENF55

Name	Offset	Hex Tag
ENF55	0	
ENF55_ASIDELEMENTLENGTH	4	8
ENF55_EYECATCHER_0T03	4	D9C1C5
ENF55_EYECATCHER_4T07	4	C6F5F5
ENF55_LATEST_VERSION	4	2
ENF55_LEN	28	28
ENF55_LENGTH	4	C8
ENF55_MAXNO0FASIDELEMENTS	4	14
ENF55_VERSION1	4	1

Table 976. Cross Reference for IRAENF55 (continued)

Name	Offset	Hex Tag
ENF55_VERSION2	4	2
ENF55ASID	0	
ENF55ASIDELEMENT	0	
ENF55ASIDELEMENT_LEN	4	8
ENF55ASIDELEMENTLENGTH	24	
ENF55ASIDELEMENTOFFSET	22	
ENF55FIXEDEND	28	
ENF55FRAMES	4	
ENF55FRAMESNEEDED	14	
ENF55FRM	10	
ENF55ID	0	
ENF55LEN	8	
ENF55N00FASIDELEMENTS	26	
ENF55QLF	C	
ENF55QLF_AFQ_SHORTAGE	4	8000
ENF55QLF_AFQ_SHORTAGE_RELIEVED	4	4000
ENF55QLF_AUX_APPL_WARNING	4	200000
ENF55QLF_AUX_APPL_WARNING_RELIEVED	4	100000
ENF55QLF_AUX_CRITICAL_SHORTAGE	4	0
ENF55QLF_AUX_SHORTAGE	4	0
ENF55QLF_AUX_SHORTAGE_RELIEVED	4	0
ENF55QLF_AUX_WARNING	4	0
ENF55QLF_HIGH_SCM_USAGE	4	40000
ENF55QLF_HIGH_SCM_USAGE_RELIEVED	4	20000
ENF55QLF_PREF_SHORTAGE	4	2000
ENF55QLF_PREF_SHORTAGE_RELIEVED	4	1000
ENF55QLF_REAL_APPL_WARNING	4	800000
ENF55QLF_REAL_APPL_WARNING_RELIEVED	4	400000
ENF55QLF_REAL_CRITICAL_SHORTAGE	4	0
ENF55QLF_REAL_SHORTAGE	4	0
ENF55QLF_REAL_SHORTAGE_RELIEVED	4	0
ENF55QLF_REAL_WARNING	4	0
ENF55QLF_SCM_HIGH_USAGE	4	40000
ENF55QLF_SCM_HIGH_USAGE_RELIEVED	4	20000
ENF55QLF_SHORTAGE_RECOGNIZED	4	0
ENF55QLF_SHORTAGE_RELIEVED	4	0
ENF55RSV1	12	
ENF55RSV10	2	
ENF55RSV4	20	

Table 976. Cross Reference for IRAENF55 (continued)

Name	Offset	Hex Tag
ENF55SLOTS	4	
ENF55SLOTSNEEDED	14	
ENF55TIMESTAMP	18	
ENF55TYP	B	
ENF55TYP_AUX_NO_SLOTS_NEEDED	4	0
ENF55TYP_AUX_SLOTS_NEEDED	4	1
ENF55TYP_PREF_ALL_REAL	4	2
ENF55TYP_PREF_BELOW_16M	4	3
ENF55TYP_PREF_BETWEEN_16M_AND_2G	4	4
ENF55TYP_PREF_NO_SHORTAGE	4	0
ENF55TYP_REAL_ALL_REAL	4	2
ENF55TYP_REAL_BELOW_16M	4	3
ENF55TYP_REAL_BETWEEN_16M_AND_2G	4	4
ENF55TYP_REAL_FIXED_PLUS_DREF	4	1
ENF55TYP_REAL_NO_SHORTAGE	4	0
ENF55VER	A	

## IRAEVPL information

### IRAEVPL programming interface information

IRAEVPL is a programming interface.

### IRAEVPL heading information

<b>Common name:</b>	Sysevent Parameter List Mappings
<b>Macro ID:</b>	IRAEVPL
<b>DSECT name:</b>	IRAENCSTATE_PARMLIST IRAENQHR_PARMLIST IRAENCASSOC_PARMLIST IRAQRYCN_PARMLIST
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: any fixed subpool Key: any Residency: Above 16M
<b>Size:</b>	IRAENCSTATE_PARMLIST -- X'0004' bytes IRAENQHR_PARMLIST -- X'0058' bytes IRAENCASSOC_PARMLIST -- X'0018' bytes IRAQRYCN_PARMLIST -- X'00D0' bytes
<b>Created by:</b>	SYSEVENT ENCSTATE invoker
<b>Pointed to by:</b>	
<b>Serialization:</b>	User-defined
<b>Function:</b>	Maps external sysevent parameter lists

## IRAEVPL mapping

Table 977. Structure IRAENCSTATE\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IRAENCSTATE_PARMLIST	
0	(0)	SIGNED	4	IRAENCSTATE_FUNCTIONCODE	IRAEVPL.17: See constants
IRAEVPL.26: Enclave is entering the idle state					
0	(0)	X'1'	0	IRAENCSTATE_IDLE	"1"
IRAEVPL.35: Enclave is leaving the idle state. Note that newly created enclaves are considered non-idle by SRM.					
0	(0)	X'2'	0	IRAENCSTATE_NONIDLE	"2"
0	(0)	X'4'	0	IRAENCSTATE_PARMLIST_LEN	"*-IRAENCSTATE_PARMLIST"

Table 978. Structure IRAENQHR\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	IRAENQHR_PARMLIST	
0	(0)	CHARACTER	88	IRAENQHR_WORKUNITINFORMATION	IRAEVPL.544: information required when the sysevent macro invocation specifies TYPE=IraEnqHR_WorkUnitInfo
0	(0)	CHARACTER	8	IRAENQHR_ETOKEN	IRAEVPL.547: Enclave token or 0 if the work unit is not known to be associated with an enclave
8	(8)	ADDRESS	4	IRAENQHR_TCBPTR	IRAEVPL.553: Address of resource holder's TCB or 0 if the holder is an SRB. The parameter is ignored for ENQRLSE
12	(C)	CHARACTER	8	IRAENQHR_TOKEN	IRAEVPL.559: Enqueue hold token pointing to the associated enqueue hold element. This is an output parameter for Hold requests and a mandatory input parameter for Rlse requests. Not valid for short time promotion
20	(14)	CHARACTER	4	IRAENQHR_SUBSYS	IRAEVPL.565: Generic subsystem type
24	(18)	CHARACTER	8	IRAENQHR_SUBSYSNAME	IRAEVPL.571: Subsystem instance
32	(20)	CHARACTER	32	IRAENQHR_SUBSYSREQUEST	IRAEVPL.577: Additional information to distinguish between different invocations by the same subsystem
64	(40)	SIGNED	4	IRAENQHR_FUNCTION	IRAEVPL.583: Function code: 0 = standard promotion, 1 = short time promotion. The parameter is ignored for ENQRLSE
68	(44)	BITSTRING	4	IRAENQHR_FLAGS	IRAEVPL.589: flags
Bit definitions:					
		1... ....		IRAENQHR_FLAGS_RHTERM	"X'80'" IRAEVPL.595: This flag signals to SRM that the parameters IraEnqHR_ASID, IraEnqHR_STOKEN, and IraEnqHR_Etoken are serialized against resource holder's termination. 0 = serialized, 1 = not serialized
72	(48)	SIGNED	2	IRAENQHR_ASID	IRAEVPL.601: Address space ID or 0 if resource holder is identified by STOKEN or enclave token

Table 978. Structure IRAENQHR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
74	(4A)	SIGNED	2		IRAEVPL.607: For future use
76	(4C)	CHARACTER	8	IRAENQHR_STOKEN	IRAEVPL.613: Address space token or 0 if resource holder is identified by ASID or enclave token
84	(54)	CHARACTER	4		IRAEVPL.619: reserved
IRAEVPL.628: Return code 8 will be passed to the caller of EnqHold/Rlse requests of type 2 or later if an invalid enclave token was specified.					
84	(54)	X'8'	0	IRAENQHR_RETURN_CODE_08	"8"
IRAEVPL.637: Return code 10 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid ASID was specified.					
84	(54)	X'A'	0	IRAENQHR_RETURN_CODE_10	"10"
IRAEVPL.646: Return code 12 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid STOKEN was specified.					
84	(54)	X'C'	0	IRAENQHR_RETURN_CODE_12	"12"
IRAEVPL.655: Return code 14 will be passed to the caller of EnqHold requests of type 3 or later if an invalid TCB address was specified.					
84	(54)	X'E'	0	IRAENQHR_RETURN_CODE_14	"14"
IRAEVPL.664: Return code 16 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid combination of ASID, STOKEN, or enclave token was specified					
84	(54)	X'10'	0	IRAENQHR_RETURN_CODE_16	"16"
IRAEVPL.673: Equivalent to MVS 5.2.2 and earlier form of sysevents where only the asid or enclave token of the holder was available.					
84	(54)	X'0'	0	IRAENQHR_NOWORKUNITINFO	"0"
IRAEVPL.682: Enqhold/Enqrlse against address space or enclave, and the TCB and ASCB of the holder are supplied.					
84	(54)	X'1'	0	IRAENQHR_WORKUNITINFO	"1"
IRAEVPL.691: Enqhold/Enqrlse against address space or enclave with subsystem information					
84	(54)	X'2'	0	IRAENQHR_SUBSYSTEMINFO	"2"
IRAEVPL.700: Enqhold/Enqrlse against address space or enclave with subsystem information. Support of short time / high frequency enqueue promotion. Support of STOKEN					
84	(54)	X'3'	0	IRAENQHR_SHORT_TIME	"3"
IRAEVPL.709: Maximum request type for Enqhold/Enqrlse Sysevents					
84	(54)	X'3'	0	IRAENQHR_MAXREQUESTTYPE	"3"
IRAEVPL.718: Function code for standard enqueue promotion					



Table 978. Structure IRAENQHR\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
84	(54)	X'0'	0	IRAENQHR_FUNCTION_STANDARD	"0"
IRAEVPL.727: Function code for short time / high frequency enqueue promotion					
84	(54)	X'1'	0	IRAENQHR_FUNCTION_STP	"1"
84	(54)	X'58'	0	IRAENQHR_PARMLIST_LEN	"*-IRAENQHR_PARMLIST"

Table 979. Structure IRAENCASSOC\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAENCASSOC_PARMLIST	
0	(0)	BITSTRING	1	IRAENCASSOC_FUNCTION_CODE	IRAEVPL.470: Function code for this request. See EncAssoc function code constants
1	(1)	BITSTRING	1	IRAENCASSOC_RSV1	IRAEVPL.444: Reserved field. Must be set to zero
2	(2)	CHARACTER	22		IRAEVPL.438: For future use
IRAEVPL.217: Return code 4 will be passed to the caller of EncAssoc if the specified function code is invalid					
2	(2)	X'4'	0	IRAENCASSOC_RETURN_CODE_04	"4"
IRAEVPL.459: Return code 10 will be passed to the caller of EncAssoc if the specified enclave token is invalid					
2	(2)	X'10'	0	IRAENCASSOC_RETURN_CODE_10	"16"
IRAEVPL.392: Function code for SYSEVENT EncAssoc: Associate an enclave with an address space					
2	(2)	X'1'	0	IRAENCASSOC_FUNCTION_ASSOC	"1"
IRAEVPL.468: Function code for SYSEVENT EncAssoc: Disassociate an enclave with an address space					
2	(2)	X'2'	0	IRAENCASSOC_FUNCTION_DISASSOC	"2"
2	(2)	X'18'	0	IRAENCASSOC_PARMLIST_LEN	"*-IRAENCASSOC_PARMLIST"

Table 980. Structure IRAQRYCN\_PARMLIST

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAQRYCN_PARMLIST	
0	(0)	CHARACTER	208	IRAQRYCN_QUERY_CONTENTION	IRAEVPL.865: Query contention information
0	(0)	CHARACTER	8	IRAQRYCN_EYE_CATCHER	IRAEVPL.964: Input: Eye catcher of query contention parameter list
8	(8)	SIGNED	2	IRAQRYCN_LEN	IRAEVPL.976: Input: Length of query contention parameter list
10	(A)	BITSTRING	1	IRAQRYCN_VERSION	IRAEVPL.970: Input: Version of query contention parameter list
11	(B)	BITSTRING	1		IRAEVPL.916: For future use
12	(C)	SIGNED	2	IRAQRYCN_ASID	IRAEVPL.758: Input: Address space ID or 0 if resource holder is identified by STOKEN or enclave token

Table 980. Structure IRAQRYCN\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
14	(E)	SIGNED	2	IRAQRYCN_NUM_OF_CI_ENTRIES	IRAEVPL.387: Output: Number of entries returned in the Contention Information array IRAQryCn_Contention_In-formation
16	(10)	CHARACTER	8	IRAQRYCN_STOKEN	IRAEVPL.922: Input: Address space token or 0 if resource holder is identified by ASID or enclave token
24	(18)	CHARACTER	8	IRAQRYCN_ETOKEN	IRAEVPL.386: Input: Enclave token or 0 if the work unit is not associated with an enclave
32	(20)	SIGNED	4	IRAQRYCN_REQTYPE	IRAEVPL.1007: Input: Request type of query. Return contention information for: 1=Standard EnqHolds and Short time EnqHolds, 2=Chronic resource contentions, 0=All
36	(24)	SIGNED	4		IRAEVPL.1001: Reserved
40	(28)	CHARACTER	32	IRAQRYCN_CONTENTION_INFORMATION	IRAEVPL.424: Output: Contention information returned by SRM
40	(28)	CHARACTER	32	IRAQRYCN_CI_RECORD	IRAEVPL.871: Contention information data record
40	(28)	CHARACTER	4	IRAQRYCN_SUBSYS	IRAEVPL.429: Generic subsystem type
44	(2C)	CHARACTER	8	IRAQRYCN_SUBSYSNAME	IRAEVPL.934: Subsystem instance
52	(34)	BITSTRING	8	IRAQRYCN_CST	IRAEVPL.940: Contention start time in STCK format
60	(3C)	SIGNED	4	IRAQRYCN_CONTENTION_ID	IRAEVPL.264: ID of SRM service the resource contention was assigned to 1=Standard EnqHold 2=Short time EnqHold 3=Chronic resource contention
64	(40)	SIGNED	4	IRAQRYCN_COUNT	IRAEVPL.877: Number of contentions signaled to SRM for this Subsystem type, Subsystem instance, and contention ID combination
68	(44)	CHARACTER	4		IRAEVPL.431: reserved
200	(C8)	CHARACTER	8		IRAEVPL.776: reserved
IRAEVPL.785: Return code 4 will be passed to the caller of SYSEVENT QRYCONT if there are no contentions.					
200	(C8)	X'4'	0	IRAQRYCN_RETURN_CODE_04	"4"
IRAEVPL.502: Return code 8 will be passed to the caller of SYSEVENT QRYCONT if an invalid enclave token was specified.					
200	(C8)	X'8'	0	IRAQRYCN_RETURN_CODE_08	"8"
IRAEVPL.794: Return code 10 will be passed to the caller of SYSEVENT QRYCONT if the specified ASID did not map to a valid, active address space.					
200	(C8)	X'A'	0	IRAQRYCN_RETURN_CODE_10	"10"
IRAEVPL.803: Return code 12 will be passed to the caller of SYSEVENT QRYCONT if the specified STOKEN did not map to a valid, active address space.					
200	(C8)	X'C'	0	IRAQRYCN_RETURN_CODE_12	"12"
IRAEVPL.812: Return code 14 will be passed to the caller of SYSEVENT QRYCONT if an invalid combination of ASID, STOKEN, or enclave token was specified in the parameter list.					

Table 980. Structure IRAQRYCN\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
200	(C8)	X'E'	0	IRAQRYCN_RETURN_CODE_14	"14"
IRAEVPL.821: Return code 16 will be passed to the caller of SYSEVENT QRYCONT if there is additional resource contention information available					
200	(C8)	X'10'	0	IRAQRYCN_RETURN_CODE_16	"16"
IRAEVPL.957: Return code 18 will be passed to the caller of SYSEVENT QRYCONT if an invalid version, length, or eye catcher was specified in the parameter list					
200	(C8)	X'12'	0	IRAQRYCN_RETURN_CODE_18	"18"
IRAEVPL.992: Return code 20 will be passed to the caller of SYSEVENT QRYCONT if an invalid request type was specified in the parameter list					
200	(C8)	X'14'	0	IRAQRYCN_RETURN_CODE_20	"20"
IRAEVPL.848: Contention caused by SYSEVENT ENQHOLD Standard					
200	(C8)	X'1'	0	IRAQRYCN_CONTENTION_ID_STD_ENQHOLD	"1"
IRAEVPL.883: Contention caused by SYSEVENT ENQHOLD Short time promotion					
200	(C8)	X'2'	0	IRAQRYCN_CONTENTION_ID_STP_ENQHOLD	"2"
IRAEVPL.892: Contention caused by Chronic resource contention service IWMCNTN					
200	(C8)	X'3'	0	IRAQRYCN_CONTENTION_ID_CNTN	"3"
IRAEVPL.946: Eyecatcher of query contention parmlist					
200	(C8)	X'D9C1D8'	0	IRAQRYCN_EYE_CATCHER_VALUE_0T03	"C'IRAQ'" This is the first 4-byte segment of an 8-byte constant.
200	(C8)	X'E8C3D5'	0	IRAQRYCN_EYE_CATCHER_VALUE_4T07	
"C'RYCN'" This is the second 4-byte segment of an 8-byte constant.					
IRAEVPL.499: Parmlist length value					
200	(C8)	X'D0'	0	IRAQRYCN_LENGTH_VALUE	"208"
IRAEVPL.982: Parmlist version 01					
200	(C8)	X'1'	0	IRAQRYCN_VERSION_01	"1"
IRAEVPL.1022: Request type 'All' returns contention information for Standard EnqHolds, Short time EnqHolds, and Chronic resource contentions					
200	(C8)	X'0'	0	IRAORYCN REOTYPE ALL	"0"

Table 980. Structure IRAQRYCN\_PARMLIST (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
IRAEVPL.1013: Request type 'EnqHold' returns contention information for Standard EnqHolds and Short time EnqHolds					
200	(C8)	X'1'	0	IRAQRYCN_REQTYPE_ENQHOLD	"1"
IRAEVPL.1031: Request type 'CNTN' returns contention information for Chronic resource contentions					
200	(C8)	X'2'	0	IRAQRYCN_REQTYPE_CNTN	"2"
200	(C8)	X'D0'	0	IRAQRYCN_PARMLIST_LEN	"*-IRAQRYCN_PARMLIST"

Table 981. Cross Reference for IRAEVPL

Name	Offset	Hex Tag
IRAENCASSOC_FUNCTION_ASSOC	2	1
IRAENCASSOC_FUNCTION_CODE	0	
IRAENCASSOC_FUNCTION_DISASSOC	2	2
IRAENCASSOC_PARMLIST	0	
IRAENCASSOC_PARMLIST_LEN	2	18
IRAENCASSOC_RETURN_CODE_04	2	4
IRAENCASSOC_RETURN_CODE_10	2	10
IRAENCASSOC_RSV1	1	
IRAENCSTATE_FUNCTIONCODE	0	
IRAENCSTATE_IDLE	0	1
IRAENCSTATE_NONIDLE	0	2
IRAENCSTATE_PARMLIST	0	
IRAENCSTATE_PARMLIST_LEN	0	4
IRAENQHR_ASID	48	
IRAENQHR_ETOKEN	0	
IRAENQHR_FLAGS	44	
IRAENQHR_FLAGS_RHTERM	44	80
IRAENQHR_FUNCTION	40	
IRAENQHR_FUNCTION_STANDARD	54	0
IRAENQHR_FUNCTION_STP	54	1
IRAENQHR_MAXREQUESTTYPE	54	3
IRAENQHR_NOWORKUNITINFO	54	0
IRAENQHR_PARMLIST	0	
IRAENQHR_PARMLIST_LEN	54	58
IRAENQHR_RETURN_CODE_08	54	8
IRAENQHR_RETURN_CODE_10	54	A
IRAENQHR_RETURN_CODE_12	54	C
IRAENQHR_RETURN_CODE_14	54	E
IRAENQHR_RETURN_CODE_16	54	10

Table 981. Cross Reference for IRAEVPL (continued)

Name	Offset	Hex Tag
IRAENQHR_SHORT_TIME	54	3
IRAENQHR_STOKEN	4C	
IRAENQHR_SUBSYS	14	
IRAENQHR_SUBSYSNAME	18	
IRAENQHR_SUBSYSREQUEST	20	
IRAENQHR_SUBSYSTEMINFO	54	2
IRAENQHR_TCBPTR	8	
IRAENQHR_TOKEN	C	
IRAENQHR_WORKUNITINFO	54	1
IRAENQHR_WORKUNITINFORMATION	0	
IRAQRYCN_ASID	C	
IRAQRYCN_CI_RECORD	28	
IRAQRYCN_CONTENTION_ID	3C	
IRAQRYCN_CONTENTION_ID_CNTN	C8	3
IRAQRYCN_CONTENTION_ID_STD_ENQHOLD	C8	1
IRAQRYCN_CONTENTION_ID_STP_ENQHOLD	C8	2
IRAQRYCN_CONTENTION_INFORMATION	28	
IRAQRYCN_COUNT	40	
IRAQRYCN_CST	34	
IRAQRYCN_ETOKEN	18	
IRAQRYCN_EYE_CATCHER	0	
IRAQRYCN_EYE_CATCHER_VALUE_0T03	C8	D9C1D8
IRAQRYCN_EYE_CATCHER_VALUE_4T07	C8	E8C3D5
IRAQRYCN_LEN	8	
IRAQRYCN_LENGTH_VALUE	C8	D0
IRAQRYCN_NUM_OF_CI_ENTRIES	E	
IRAQRYCN_PARMLIST	0	
IRAQRYCN_PARMLIST_LEN	C8	D0
IRAQRYCN_QUERY_CONTENTION	0	
IRAQRYCN_REQTYPE	20	
IRAQRYCN_REQTYPE_ALL	C8	0
IRAQRYCN_REQTYPE_CNTN	C8	2
IRAQRYCN_REQTYPE_ENQHOLD	C8	1
IRAQRYCN_RETURN_CODE_04	C8	4
IRAQRYCN_RETURN_CODE_08	C8	8
IRAQRYCN_RETURN_CODE_10	C8	A
IRAQRYCN_RETURN_CODE_12	C8	C
IRAQRYCN_RETURN_CODE_14	C8	E
IRAQRYCN_RETURN_CODE_16	C8	10

Table 981. Cross Reference for IRAEVPL (continued)

Name	Offset	Hex Tag
IRAQRYCN_RETURN_CODE_18	C8	12
IRAQRYCN_RETURN_CODE_20	C8	14
IRAQRYCN_STOKEN	10	
IRAQRYCN_SUBSYS	28	
IRAQRYCN_SUBSYSNAME	2C	
IRAQRYCN_VERSION	A	
IRAQRYCN_VERSION_01	C8	1

## IRAICSM information

### IRAICSM programming interface information

IRAICSM is a programming interface.

### IRAICSM heading information

<b>Common name:</b>	System Resource Manager Installation Control Specification Symbol Table Entry Mapping Macro
<b>Macro ID:</b>	IRAICSM
<b>DSECT name:</b>	ICSM
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: N/A Virtual Storage: N/A Auxiliary Storage: N/A Subpool: Storage must be non-pageable Key: IWMRCOLL caller's key Residency: N/A
<b>Size:</b>	48 Bytes (per ICSM entry)
<b>Created by:</b>	As a result of IWMRCOLL invocation
<b>Pointed to by:</b>	ICSMNDX is located within the RCAAICSS by adding an offset located in RCAAICSX to the start of RCAAICSS (the ICSMNDX contains an array of offsets). ICSM is located within the RCAAICSS by adding an offset located in RCAAICSM to the start of RCAAICSS. To access a particular PGN, the ICSMNDX(PGN) offset must also be added in.
<b>Serialization:</b>	None

**Function:**

The ICSM element contains information related to each unique performance group specified in the installation control specification parmlib member. The information is the subsystem name, transaction name, userid, transaction class, or service class name.

If the data is unavailable, the field contains zeros. If multiple symbolic names are associated with the same performance group, the field contains blanks.

An array is used to index into this table.

The first index is for performance group 1.

The last index is for the highest performance group number specified in the installation control specification. If a performance group is not specified, the index value is zero.

## IRAICSM mapping

Table 982. Structure ICSM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ICSM	
0	(0)	CHARACTER	4	ICSMSUBN	SUBSYSTEM NAME
4	(4)	CHARACTER	10	ICSMTRXN	TRANSACTION NAME
14	(E)	CHARACTER	10	ICSMUSRD	USERID
24	(18)	CHARACTER	10	ICSMCLS	TRANSACTION CLASS
34	(22)	CHARACTER	10	ICMSRVC	SERVICE CLASS (SRVCLASS)
44	(2C)	BITSTRING	1	ICSMFLAG	FLAGS
		1... ..		ICSMACTN	"BIT0" ACCOUNT NUMBER SPECIFIED FOR PGN IN ICS
45	(2D)	BITSTRING	3	ICSMRSVD	RESERVED
48	(30)	SIGNED	4	ICSMEND(0)	END OF ICSM
48	(30)	X'30'	0	ICSMLLEN	"ICSMEND-ICSM" LENGTH OF ICSM

Table 983. Cross Reference for IRAICSM

Name	Offset	Hex Tag
ICSM	0	
ICSMACTN	2C	80
ICSMCLS	18	40404040
ICSMEND	30	
ICSMFLAG	2C	0
ICSMLLEN	30	30
ICSMRSVD	2D	0
ICMSRVC	22	40404040
ICSMSUBN	0	40404040
ICSMTRXN	4	40404040
ICSMUSRD	E	40404040

## IRALPDAT information

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### IRALPDAT programming interface information

IRALPDAT is a programming interface.

### IRALPDAT heading information

<b>Common name:</b>	Sysevent REQLPDAT parameter list
<b>Macro ID:</b>	IRALPDAT
<b>DSECT name:</b>	LPDAT
<b>Owning component:</b>	System Resource Manager (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: caller-defined, must be fixed Key: 0 Residency: Between 16M and 2G
<b>Size:</b>	See assembly listing LPDATMAP -- X'00D0' bytes LPDATSERVICEENTRYMAP -- X'0020' bytes
<b>Created by:</b>	Caller of SYSEVENT REQLPDAT
<b>Pointed to by:</b>	Register 1 on entry to SYSEVENT REQLPDAT
<b>Serialization:</b>	None
<b>Function:</b>	<p>Maps data returned by SYSEVENT REQLPDAT (Request LPAR Data). The area returned by REQLPDAT consists of an area mapped by DSECT LPDATMAP and zero or more contiguous areas each mapped by DSECT LPDatServiceTableEntryMap. The only input to REQLPDAT is field LPDATLEN in the parameter area. You must set LPDATLEN to the length of the provided parameter area before invoking the REQLPDAT SYSEVENT. You should either</p> <ul style="list-style-type: none"><li>o set LPDATLEN to 0,</li><li>o set LPDATLEN using equate LPDATPARMLENGTH and provide a parameter area that has a size of at least LPDATPARMLENGTH bytes, or</li><li>o obtain a sufficiently large parameter area of more than LPDATPARMLENGTH bytes and set LPDATLEN accordingly.</li></ul> <p>The parameter area contains variable data and its length can change at any time, not just with a new release of z/OS. Therefore, you must check the return code from REQLPDAT. If the input LPDATLEN value is smaller than the needed size of the parameter area, then the SYSEVENT will return with return code 4. In this case,</p> <ul style="list-style-type: none"><li>o the system will set the LPDATLEN field to the actual needed length of the parameter area.</li><li>o You must call REQLPDAT again with a parameter area that is at least LPDATLEN bytes long, making sure that the LPDATLEN field indicates the length of the area</li></ul> <p>On return the caller can inspect LpDatVer field to determine which fields have been filled in.</p>



## IRALPDAT mapping

Table 984. Structure LPDATMAP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	LPDATMAP	
0	(0)	CHARACTER	4	LPDATINOUT	IRALPDAT.417: Input/Output fields
0	(0)	SIGNED	4	LPDATLEN	IRALPDAT.422: Length of area. If SYSEVENT REQLPDAT fails with return code of 4, this field can be examined to obtain correct size of the parameter list
4	(4)	CHARACTER	204	LPDATOUT	IRALPDAT.428: Output fields
4	(4)	BITSTRING	1	LPDATVER	IRALPDAT.431: Version
5	(5)	BITSTRING	1	LPDATFLAGS	IRALPDAT.437: flags
Bit definitions:					
		1... ....		LPDATDEFCAPSET	"X'80'" IRALPDAT.443: Partition is set with defined capacity. Data contained in LpDatDefCapData section is valid
		.1.. ....		LPDATDEFCAPDATAVALID	"X'40'" IRALPDAT.3: Data contained in LpDatDefCapData section is valid
6	(6)	SIGNED	2		IRALPDAT.449: Reserved
8	(8)	SIGNED	4	LPDATCECCAPACITY	IRALPDAT.455: CEC CPU capacity in millions of service units per hour
12	(C)	CHARACTER	8	LPDATIMGLOGICALPARTITIONNAME	IRALPDAT.461: Logical partition name
20	(14)	SIGNED	4	LPDATIMGCAPACITY	IRALPDAT.467: Logical partition CPU capacity in millions of service units per hour
24	(18)	SIGNED	4	LPDATPHYCPUADJFACTOR	IRALPDAT.473: Physical CPU adjustment factor (i.e. adjustment factor for converting CPU time to equivalent service in basic-mode with all processors online)
28	(1C)	SIGNED	4	LPDATCUMWEIGHT	IRALPDAT.479: Cumulative weight of the image since IPL for the local partition
32	(20)	SIGNED	4	LPDATWEIGHTACCUMCOUNTER	IRALPDAT.485: Number of times the current weight is accumulated
36	(24)	CHARACTER	60	LPDATDEFCAPDATA	IRALPDAT.491: The following data section is available if the system provides licensing information. This is the case if the system is running in LPAR mode
36	(24)	SIGNED	4	LPDATAVGIMGSERVICE	IRALPDAT.494: Long-term average CPU service used by this logical partition, in millions of service units per hour. If this value is above the partition's defined capacity, the partition will be capped.
40	(28)	BITSTRING	8	LPDATCUMUNCAPPEDELAPESTIME	IRALPDAT.500: Cumulative uncapped elapsed time since defined capacity for the local partition was established, in micro seconds. Only valid if a defined capacity limit was specified

Table 984. Structure LPDATMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	BITSTRING	8	LPDATCUMCAPPEDELAPESTIME	IRALPDAT.506: Cumulative capped elapsed time since defined capacity for the local partition was established, in micro seconds. Only valid if a defined capacity limit was specified
56	(38)	SIGNED	4	LPDATSERVICETABLEENTRYINTERVAL	IRALPDAT.512: Approximate time interval (in seconds) for each entry in the service table
60	(3C)	SIGNED	4	LPDATSERVICETABLEOFFSET	IRALPDAT.518: Offset from the beginning of the LPDatMap area. The Service Table Entries area consists of contiguous entries each mapped by DSECT LPDatService- eTableEntryMap. The number of entries is contained in field LPDatService- eTableEntries. Access the first entry by adding the value in LPDatService- eTableOffset to the address of the LPDatMap area.
64	(40)	SIGNED	4	LPDATSERVICETABLEENTRYLENGTH	IRALPDAT.524: Length of one service table entry
68	(44)	SIGNED	4	LPDATSERVICETABLEENTRIES	IRALPDAT.530: Number of service entries in the service table
72	(48)	CHARACTER	8	LPDATCAPACITYGROUPNAME	IRALPDAT.33: all partitions which have the same CapacityGroupName build the capacity group
80	(50)	SIGNED	4	LPDATCAPACITYGROUPMSULIMIT	IRALPDAT.309: The group limit in million service units per hour (MSU)
84	(54)	BITSTRING	8	LPDATGROUPJOINEDTOD	IRALPDAT.378: Timestamp when this lpar has joined its group (last change of group name)
92	(5C)	SIGNED	4	LPDATIMGMSULIMIT	IRALPDAT.85: Capacity in millions of service units per hour which is derived from defined capacity and group capacity
96	(60)	CHARACTER	76	LPDATINSTALLEDCAPDATA	IRALPDAT.69: The following data section is always available with version 4 of the parameter area, but it contains non-zero data only on hardware that supplies this data. For more details about this data see the description in "Store System Information" in manual "z/Architecture Principles of Operation".
96	(60)	CHARACTER	16	LPDATMODELCAPIIDENT	IRALPDAT.72: The 16-character (0-9 or uppercase A-Z) EBCDIC model-capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if the first word of LPDatModel is zero.
112	(70)	CHARACTER	16	LPDATMODEL	IRALPDAT.319: The 16-character (0-9 or uppercase A-Z) EBCDIC model identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if the first word is not zero. Otherwise field LPDatModelCapIdent represents both the model-capacity identifier and the model.

Table 984. Structure LPDATMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
128	(80)	CHARACTER	16	LPDATMODELPERMCAPIDENT	IRALPDAT.108: The 16-character (0-9 or uppercase A-Z) EBCDIC model-permanent capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if non-zero.
144	(90)	CHARACTER	16	LPDATMODELTEMPCAPIDENT	IRALPDAT.276: The 16-character (0-9 or uppercase A-Z) EBCDIC model-temporary capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if non-zero.
160	(A0)	SIGNED	4	LPDATMODELCPARATING	IRALPDAT.282: When non-zero, an unsigned integer whose value is associated with the model capacity as identified by the model-capacity identifier. There is no formal description of the algorithm used to generate this integer.
164	(A4)	SIGNED	4	LPDATMODELPERMCAPRATING	IRALPDAT.277: When non-zero, an unsigned integer whose value is associated with the model-permanent capacity as identified by the model-permanent- capacity identifier. There is no formal description of the algorithm used to generate this integer.
168	(A8)	SIGNED	4	LPDATMODELTEMPCAPRATING	IRALPDAT.293: When non-zero, an unsigned integer whose value is associated with the model-temporary capacity as identified by the model-temporary- capacity identifier. There is no formal description of the algorithm used to generate this integer.
172	(AC)	BITSTRING	1	LPDATGROUPUNUSEDSCALEFACTOR	IRALPDAT.301: The scaling factor for the unused group capacity which part of the service table.
173	(AD)	BITSTRING	1	LPDATBOOSTINFO	IRALPDAT.113: same as RMCTZ_BoostInfo
174	(AE)	CHARACTER	2	LPDATRESERVED	IRALPDAT.536: Reserved for future use
176	(B0)	SIGNED	4	LPDATIMGCAPZCBP	IRALPDAT.315: Logical partition zCBP capacity, always zero since zCBP revoked
180	(B4)	SIGNED	4	LPDATCECCAPZCBP	IRALPDAT.17: CEC zCBP capacity, always zero since zCBP revoked
184	(B8)	SIGNED	4	LPDATAVGIMGSERVICEZCBP	IRALPDAT.122: Long-term average zCBP service used by this logical partition, always zero
188	(BC)	CHARACTER	20	LPDATMODELREPLCAP	IRALPDAT.363: Model-replacement capacity values, available with version 7
188	(BC)	CHARACTER	16	LPDATMODELREPLCAPIDENT	IRALPDAT.360: The 16-character (0-9 or uppercase A-Z) EBCDIC model-replacement capacity identifier of the configuration. The identifier is left justified with trailing blanks if necessary Valid only if non-zero.

Table 984. Structure LPDATMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
204	(CC)	SIGNED	4	LPDATMODELREPLCAPRATING	IRALPDAT.358: When non-zero, an unsigned integer whose value is associated with the model-replacement capacity as identified by the model-replacement capacity identifier. There is no formal description of the algorithm used to generate this integer.
208	(D0)	CHARACTER	1	LPDATEND1(0)	IRALPDAT.542: End on a word boundary
208	(D0)	X'D0'	0	LPDATMAP_LEN	"*-LPDATMAP"

Table 985. Structure LPDATSERVICETABLEENTRYMAP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LPDATSERVICETABLEENTRYMAP	
0	(0)	SIGNED	4	LPDATSERVICEUNCAPPED	IRALPDAT.560: Basic-mode service units accumulated while the partition was uncapped.
4	(4)	SIGNED	4	LPDATSERVICEUNCAPPEDTIME	IRALPDAT.566: Elapsed time that the partition was uncapped, in 1.024 millisecond units
8	(8)	SIGNED	4	LPDATSERVICECAPPED	IRALPDAT.572: Basic-mode service units accumulated while the partition was capped.
12	(C)	SIGNED	4	LPDATSERVICECAPPEDTIME	IRALPDAT.578: Elapsed time that the partition was capped, in 1.024 millisecond units.
16	(10)	SIGNED	4	LPDATSERVICEUNUSEDGROUPCAPACITY	IRALPDAT.324: Service units which would be allowed by the group capacity limit but are not consumed by the members of the group.
20	(14)	CHARACTER	4		IRALPDAT.111: Reserved to align to DWORD boundary
24	(18)	SIGNED	8	LPDATSERVICEZCBP	IRALPDAT.124: Basic-mode zCBP service units, always zero
IRALPDAT.630: Version 1					
24	(18)	X'1'	0	LPDATVER1	"1"
IRALPDAT.16: Version 2					
24	(18)	X'2'	0	LPDATVER2	"2"
IRALPDAT.44: Version 3 (additional fields) @LGCL2					
24	(18)	X'3'	0	LPDATVER3	"3"
IRALPDAT.49: Version 4 (additional fields)					
24	(18)	X'4'	0	LPDATVER4	"4"
IRALPDAT.101: Version 5 (additional fields)					
24	(18)	X'5'	0	LPDATVER5	"5"
IRALPDAT.147: Version 6 (additional fields)					
24	(18)	X'6'	0	LPDATVER6	"6"

Table 985. Structure LPDATSERVICETABLEENTRYMAP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
IRALPDAT.161: Version 7 (additional fields)					
24	(18)	X'7'	0	LPDATVER7	"7"
IRALPDAT.639: Current Version					
24	(18)	X'7'	0	LPDATCURVER	"7"
IRALPDAT.648: Service completed successfully					
24	(18)	X'0'	0	LPDATRCOK	"0"
IRALPDAT.335: Parameter list is too small to contain current version data					
24	(18)	X'4'	0	LPDATRCTOOSMALL	"4"
IRALPDAT.657: Current required length of Parameter list					
24	(18)	X'6D0'	0	LPDATPARMLENGTH	"1744"
24	(18)	X'20'	0	LPDATSERVICETABLEENTRYMAP_LEN	"*-LPDATSERVICETABLEENTRYMAP"

Table 986. Cross Reference for IRALPDAT

Name	Offset	Hex	Tag
LPDATAVGIMGSERVICE	24		
LPDATAVGIMGSERVICEZCBP	B8		
LPDATBOOSTINFO	AD		
LPDATCAPACITYGROUPMSULIMIT	50		
LPDATCAPACITYGROUPNAME	48		
LPDATCECCAPACITY	8		
LPDATCECCAPZCBP	B4		
LPDATCUMCAPPEDELAPESEDTIME	30		
LPDATCUMUNCAPPEDELAPESEDTIME	28		
LPDATCUMWEIGHT	1C		
LPDATCURVER	18		7
LPDATDEFCAPDATA	24		
LPDATDEFCAPDATAVALID	5		40
LPDATDEFCAPSET	5		80
LPDATEND1	D0		
LPDATFLAGS	5		
LPDATGROUPJOINEDTOD	54		
LPDATGROUPUNUSEDSCALEFACTOR	AC		
LPDATIMGCAPACITY	14		
LPDATIMGCAPZCBP	B0		
LPDATIMGLOGICALPARTITIONNAME	C		

Table 986. Cross Reference for IRALPDAT (continued)

Name	Offset	Hex Tag
LPDATIMGMSULIMIT	5C	
LPDATINOUT	0	
LPDATINSTALLEDCApdata	60	
LPDATLEN	0	
LPDATMAP	0	
LPDATMAP_LEN	D0	D0
LPDATMODEL	70	
LPDATMODELCAPIIDENT	60	
LPDATMODELCAPRATING	A0	
LPDATMODELPERMCAPIIDENT	80	
LPDATMODELPERMCAPRATING	A4	
LPDATMODELREPLCAP	BC	
LPDATMODELREPLCAPIIDENT	BC	
LPDATMODELREPLCAPRATING	CC	
LPDATMODELTEMPCAPIIDENT	90	
LPDATMODELTEMPCAPRATING	A8	
LPDATOUT	4	
LPDATPARMLENGTH	18	6D0
LPDATPHYCPUADJFACTOR	18	
LPDATRCOK	18	0
LPDATRCTOOSMALL	18	4
LPDATRESERVED	AE	
LPDATSERVICECAPPED	8	
LPDATSERVICECAPPEDTIME	C	
LPDATSERVICEABLEENTRIES	44	
LPDATSERVICEABLEENTRYINTERVAL	38	
LPDATSERVICEABLEENTRYLENGTH	40	
LPDATSERVICEABLEENTRYMAP	0	
LPDATSERVICEABLEENTRYMAP_LEN	18	20
LPDATSERVICEABLEOFFSET	3C	
LPDATSERVICEUNCAPPED	0	
LPDATSERVICEUNCAPPEDTIME	4	
LPDATSERVICEUNUSEDGROUPCAPACITY	10	
LPDATSERVICEZCBP	18	
LPDATVER	4	
LPDATVER1	18	1
LPDATVER2	18	2
LPDATVER3	18	3
LPDATVER4	18	4

Table 986. Cross Reference for IRALPDAT (continued)

Name	Offset	Hex Tag
LPDATVER5	18	5
LPDATVER6	18	6
LPDATVER7	18	7
LPDATWEIGHTACCUMCOUNTER	20	

## IRAMEMRY information

### IRAMEMRY programming interface information

IRAMEMRY is a programming interface.

### IRAMEMRY heading information

<b>Common name:</b>	SYSEVENT MEMORY parameter list
<b>Macro ID:</b>	IRAMEMRY
<b>DSECT name:</b>	Mem_Header Mem_Real_Section Mem_Aux_Section Mem_Ded_Section
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	'IRAMEMRY' Offset: 0 Length: 8
<b>Storage attributes:</b>	Subpool: caller-defined, for authorized must be fixed Key: Authorized 0-7, Unauthorized 8-15 Residency: Above 16M
<b>Size:</b>	Mem_Header -- X'0040' bytes Mem_Real_Section -- X'0050' bytes Mem_Aux_Section -- X'0040' bytes Mem_Ded_Section -- X'0040' bytes
<b>Created by:</b>	Caller of SYSEVENT MEMORY
<b>Pointed to by:</b>	Register 1 on entry to SYSEVENT MEMORY
<b>Serialization:</b>	None
<b>Function:</b>	This block contains the parameter list for SYSEVENT MEMORY.

### IRAMEMRY mapping

Table 987. Structure MEM\_HEADER

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MEM_HEADER	
0	(0)	CHARACTER	16	MEM_INOUT	
0	(0)	CHARACTER	8	MEM_ID	Eyecatcher IRAMEMRY
8	(8)	SIGNED	4	MEM_LENGTH	(In) Length of parameter list. If SYSEVENT returns with RC=8, this field contains the required length
12	(C)	CHARACTER	4		Reserved

Table 987. Structure MEM\_HEADER (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
16	(10)	CHARACTER	48	MEM_OUT	
16	(10)	SIGNED	2	MEM_HDR_LENGTH	Length of this section
18	(12)	BITSTRING	1	MEM_VERSION	Version
19	(13)	CHARACTER	5		Reserved
24	(18)	CHARACTER	8	MEM_REAL	
24	(18)	SIGNED	4	MEM_REAL_OFFSET	Offset to the Real Memory Section
28	(1C)	SIGNED	2	MEM_REAL_LENGTH	Length of the Real Memory Section
30	(1E)	SIGNED	2	MEM_REAL_COUNT	Number of Real Memory sections. First section is the system memory, the following sections the memory pool related sections
32	(20)	CHARACTER	8	MEM_AUX	
32	(20)	SIGNED	4	MEM_AUX_OFFSET	Offset to the AUX Memory Section
36	(24)	SIGNED	2	MEM_AUX_LENGTH	Length of the AUX Memory Section
38	(26)	SIGNED	2	MEM_AUX_COUNT	Number of Aux Memory sections (currently 1)
40	(28)	CHARACTER	8	MEM_DED	
40	(28)	SIGNED	4	MEM_DED_OFFSET	Offset to the Dedicated Memory Section
44	(2C)	SIGNED	2	MEM_DED_LENGTH	Length of the Dedicated Memory Section
46	(2E)	SIGNED	2	MEM_DED_COUNT	Number of Dedicated Memory sections (currently 1)
48	(30)	CHARACTER	16		Reserved
48	(30)	X'40'	0	MEM_HEADER_LEN	"*-Mem_Header"

Table 988. Structure MEM\_REAL\_SECTION

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	MEM_REAL_SECTION	
0	(0)	CHARACTER	8	MEM_REAL_NAME	Contains SYSTEM or the MEMPOOL name
8	(8)	BITSTRING	1	MEM_REAL_TYPE	
Bit definitions:					
		1... ....		MEM_REAL_TYPE_SYSTEM	"X'80'" If on, this is a System view
		.1.. ....		MEM_REAL_TYPE_MEMPOOL	"X'40'" If on, this is a Memory Pool view
9	(9)	BITSTRING	1	MEM_REAL_FLAGS	
Bit definitions:					
		1... ....		MEM_REAL_FLAGS_B16SHORTAGE	"X'80'" Below 16 Shortage - Only set when Type=SYSTEM
		.1.. ....		MEM_REAL_FLAGS_B2GSHORTAGE	"X'40'" Between 2G Shortage - Only set when Type=SYSTEM
		..1. ....		MEM_REAL_FLAGS_DREFSHORTAGE	"X'20'" DREF Shortage - Only set when Type=SYSTEM
		...1 ....		MEM_REAL_FLAGS_TOTSHORTAGE	"X'10'" Total Real Shortage - Only set when Type=SYSTEM
		.... ..1.		MEM_REAL_FLAGS_MEMSHORTAGE	"X'02'" Memory Pool Shortage - Only set when Type=MEMPOOL



Table 988. Structure MEM\_REAL\_SECTION (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
10	(A)	CHARACTER	6		Reserved
16	(10)	CHARACTER	32	MEM_REAL_PAGEABLE	
16	(10)	SIGNED	8	MEM_REAL_PAGE_AVAILABLE	Available memory and when obtained nearly no impact to the throughput of the system
24	(18)	SIGNED	8	MEM_REAL_PAGE_SOMEIMPACT	When obtained there is some impact to the throughput of the system
32	(20)	SIGNED	8	MEM_REAL_PAGE_MOREIMPACT	When obtained there is noticeable impact to the throughput of the system
40	(28)	SIGNED	8	MEM_REAL_PAGE_USED	Amount of memory currently in use
48	(30)	CHARACTER	16	MEM_REAL_FIXED	
48	(30)	SIGNED	8	MEM_REAL_FIXED_AVAILABLE	Amount of memory an application can fix, without running into a pageable memory shortage
56	(38)	SIGNED	8	MEM_REAL_FIXED_USED	Amount of memory currently fixed in the system
64	(40)	CHARACTER	16	MEM_REAL_2G	
64	(40)	SIGNED	8	MEM_REAL_2G_AVAILABLE	Amount of 2G frames available in the system
72	(48)	SIGNED	8	MEM_REAL_2G_USED	Amount of 2G frames currently in use
72	(48)	X'50'	0	MEM_REAL_SECTION_LEN	"*-Mem_Real_Section"

Table 989. Structure MEM\_AUX\_SECTION

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MEM_AUX_SECTION	
0	(0)	CHARACTER	8	MEM_AUX_NAME	
8	(8)	BITSTRING	1	MEM_AUX_FLAGS	
Bit definitions:					
		1... ....		MEM_AUX_FLAGS_WARNING	"X'80'" ASM Warning level
		.1.. ....		MEM_AUX_FLAGS_APPLWARNING	"X'40'" ASM Appl Warning
		..1. ....		MEM_AUX_FLAGS_SHORTAGE	"X'20'" ASM 1st level shortage
		...1 ....		MEM_AUX_FLAGS_CRITICALSHORTAGE	"X'10'" ASM 2nd level shortage
9	(9)	CHARACTER	7		Reserved
16	(10)	CHARACTER	16	MEM_AUX_SCM	
16	(10)	SIGNED	8	MEM_AUX_SCM_AVAILABLE	50% of the first aux level threshold of the total number of 4K SCM blocks available to ASM minus used blocks
24	(18)	SIGNED	8	MEM_AUX_SCM_USED	Number of used SCM blocks
32	(20)	CHARACTER	16	MEM_AUX_DASD	
32	(20)	SIGNED	8	MEM_AUX_DASD_AVAILABLE	50% of the first aux of the total local slots in all open local page data sets minus used blocks
40	(28)	SIGNED	8	MEM_AUX_DASD_USED	Count of total used local slots
48	(30)	CHARACTER	16	MEM_AUX_TOTAL	
48	(30)	SIGNED	8	MEM_AUX_TOTAL_AVAILABLE	Total number of SCM plus local slots
56	(38)	SIGNED	8	MEM_AUX_TOTAL_USED	Count of SCM and local used slots
56	(38)	X'40'	0	MEM_AUX_SECTION_LEN	"*-Mem_Aux_Section"

Table 990. Structure MEM\_DED\_SECTION

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MEM_DED_SECTION	
0	(0)	CHARACTER	8	MEM_DED_NAME	
8	(8)	CHARACTER	16	MEM_DED_2G	
8	(8)	SIGNED	8	MEM_DED_2G_AVAILABLE	Number of Dedicated Memory frames available for use as 2G units
16	(10)	SIGNED	8	MEM_DED_2G_USED	Number of Dedicated Memory frames in use backing 2G Fixed memory
24	(18)	CHARACTER	24	MEM_DED_1M	
24	(18)	SIGNED	8	MEM_DED_1M_AVAILABLE	Number of Dedicated Memory frames available for use as 1M units
32	(20)	SIGNED	8	MEM_DED_1M_USED	Number of Dedicated Memory 1M frames in use backing fixed 1M memory
40	(28)	SIGNED	8	MEM_DED_1M_USED_PAGEABLE	Number of Dedicated Memory 1M frames in use backing pageable 1M
48	(30)	CHARACTER	16	MEM_DED_4K	
48	(30)	SIGNED	8	MEM_DED_4K_AVAILABLE	Number of Dedicated Memory frames available for use as 4K units
56	(38)	SIGNED	8	MEM_DED_4K_USED	Number of Dedicated Memory 4K frames in use backing 4k memory
TYPE=0: Header + System Section + max 1 Memory Pool Section + Aux Section + Ded Section					
56	(38)	X'160'	0	MEM_SIZE_TYPE0	"352"
TYPE=1: Header + System Section + max 64 Memory Pool Sections + Aux Section + Ded Section					
56	(38)	X'1510'	0	MEM_SIZE_TYPE1	"5392"
56	(38)	X'40'	0	MEM_DED_SECTION_LEN	"*-Mem_Ded_Section"

Table 991. Cross Reference for IRAMEMRY

Name	Offset	Hex Tag
MEM_AUX	20	
MEM_AUX_COUNT	26	
MEM_AUX_DASD	20	
MEM_AUX_DASD_AVAILABLE	20	
MEM_AUX_DASD_USED	28	
MEM_AUX_FLAGS	8	
MEM_AUX_FLAGS_APPLWARNING	8	40
MEM_AUX_FLAGS_CRITICALSHORTAGE	8	10
MEM_AUX_FLAGS_SHORTAGE	8	20
MEM_AUX_FLAGS_WARNING	8	80
MEM_AUX_LENGTH	24	
MEM_AUX_NAME	0	
MEM_AUX_OFFSET	20	
MEM_AUX_SCM	10	
MEM_AUX_SCM_AVAILABLE	10	

Table 991. Cross Reference for IIRAMEMRY (continued)

Name	Offset	Hex Tag
MEM_AUX_SCM_USED	18	
MEM_AUX_SECTION	0	
MEM_AUX_SECTION_LEN	38	40
MEM_AUX_TOTAL	30	
MEM_AUX_TOTAL_AVAILABLE	30	
MEM_AUX_TOTAL_USED	38	
MEM_DED	28	
MEM_DED_COUNT	2E	
MEM_DED_LENGTH	2C	
MEM_DED_NAME	0	
MEM_DED_OFFSET	28	
MEM_DED_SECTION	0	
MEM_DED_SECTION_LEN	38	40
MEM_DED_1M	18	
MEM_DED_1M_AVAILABLE	18	
MEM_DED_1M_USED	20	
MEM_DED_1M_USED_PAGEABLE	28	
MEM_DED_2G	8	
MEM_DED_2G_AVAILABLE	8	
MEM_DED_2G_USED	10	
MEM_DED_4K	30	
MEM_DED_4K_AVAILABLE	30	
MEM_DED_4K_USED	38	
MEM_HDR_LENGTH	10	
MEM_HEADER	0	
MEM_HEADER_LEN	30	40
MEM_ID	0	
MEM_INOUT	0	
MEM_LENGTH	8	
MEM_OUT	10	
MEM_REAL	18	
MEM_REAL_COUNT	1E	
MEM_REAL_FIXED	30	
MEM_REAL_FIXED_AVAILABLE	30	
MEM_REAL_FIXED_USED	38	
MEM_REAL_FLAGS	9	
MEM_REAL_FLAGS_B16SHORTAGE	9	80
MEM_REAL_FLAGS_B2GSHORTAGE	9	40
MEM_REAL_FLAGS_DREFSHORTAGE	9	20

Table 991. Cross Reference for IRAMEMRY (continued)

Name	Offset	Hex Tag
MEM_REAL_FLAGS_MEMSHORTAGE	9	2
MEM_REAL_FLAGS_TOTSHORTAGE	9	10
MEM_REAL_LENGTH	1C	
MEM_REAL_NAME	0	
MEM_REAL_OFFSET	18	
MEM_REAL_PAGE_AVAILABLE	10	
MEM_REAL_PAGE_MOREIMPACT	20	
MEM_REAL_PAGE_SOMEIMPACT	18	
MEM_REAL_PAGE_USED	28	
MEM_REAL_PAGEABLE	10	
MEM_REAL_SECTION	0	
MEM_REAL_SECTION_LEN	48	50
MEM_REAL_TYPE	8	
MEM_REAL_TYPE_MEMPOOL	8	40
MEM_REAL_TYPE_SYSTEM	8	80
MEM_REAL_2G	40	
MEM_REAL_2G_AVAILABLE	40	
MEM_REAL_2G_USED	48	
MEM_SIZE_TYPE0	38	160
MEM_SIZE_TYPE1	38	1510
MEM_VERSION	12	

## IRAOUCBX information

### IRAOUCBX heading information

<b>Common name:</b>	Resources Manager User Control Block Extension
<b>Macro ID:</b>	IRAOUCBX
<b>DSECT name:</b>	Oucbx,OucbS,OucbSamples,OucbReptSamples
<b>Owning component:</b>	SYSTEMS RESOURCE MANAGER (SC1CX)
<b>Eye-catcher ID:</b>	OUCBS SOS RSOS Offset: OUCBS - 0 in OucbS SOS - 124 in OucbSamples RSOS - 124 in OucbReptSamples Length: OUCBS - 8 bytes SOS - 4 bytes RSOS - 4 bytes

**Storage attributes:** Main Storage: ESQA  
Subpool: 245  
Key: 0  
Residency: Above 16M line

**Size:** 2816 bytes  
OucbX -- X'0680' bytes

**Created by:** IRAEVMEM, IRARMERR

**Pointed to by:** None

**Serialization:** SRM lock, Compare and Swap (CS) instruction

**Function:** This block contains address-space related data needed by SRM. It is contained within the OUCB and the length of the OUCB includes the storage required for this block.

## IRAUCBX mapping

Table 992. Structure OUCBX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1664	OUCBX	
0	(0)	CHARACTER	128	OUCB_CACHELINE3	
0	(0)	ADDRESS	4	OUCBAPRQ	Address of record chain for APPC service requests
4	(4)	UNSIGNED	4	OUCBRSTB	BASE TIME FOR PAGE RES SECS
8	(8)	BITSTRING	8	OUCBEJST	Elapsed job step time for reduced preemption - elapsed jobstep time at first sample of sample cycle stored from the ASCBEJST
16	(10)	BITSTRING	8	OUCBSWPC	FIELD FOR SWAP PG CTS
16	(10)	SIGNED	4	OUCBPSO	PAGES SWAPPED AT LAST SWAPOUT
20	(14)	SIGNED	4	OUCBWSS	WORKING SET SIZE SWAP-IN
24	(18)	UNSIGNED	4	OUCBHOLD	HOLD COUNT
28	(1C)	UNSIGNED	4	OUCBOUTT	Time user should stay swapped out
32	(20)	SIGNED	4	OUCBFIX	CNT OF REQUIRED FIXED/LSQA
36	(24)	SIGNED	4	OUCBHSUM	BASE VALUE FOR HIPERSPACE PAGE-IN COUNT
40	(28)	SIGNED	4	OUCBCSUM	BASE VALUE FOR CACHE READ MISS COUNT
44	(2C)	UNSIGNED	2	OUCBCFCT	Number of samples taken to determine average central storage usage
46	(2E)	UNSIGNED	2	OUCBSWCB	short wait count base, base for ascbswct
48	(30)	UNSIGNED	4	OUCBWKTM	Time that work unit entered MVS system in SRM time format
52	(34)	SIGNED	4	OUCBSRRC	Count of Sysplex Router Registrations for space
56	(38)	UNSIGNED	4	OUCBPGTB	Base value for pages paged and pages moved that is updated when a point is plotted for this address space
60	(3C)	UNSIGNED	4	OUCBAUXB	Base value for auxiliary pages paged that is updated when a point is plotted for this address space
64	(40)	UNSIGNED	4	OUCBRESB	Base value for resident time that is updated when a point is plotted for this address space

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
68	(44)	UNSIGNED	4	OUCBPGIB	Base value for the count of pages paged in that is updated when a point is plotted for this address space
72	(48)	UNSIGNED	4	OUCBPU2B	Base value for pages paged and pages moved that is updated every RM2 interval if the address space is managed.
76	(4C)	SIGNED	4	OUCBBPIN	Base value for block page-in count
80	(50)	SIGNED	4	OUCBBPNE	Base value for block page-in from expanded count (ESA Mode Only, do not use in z/OS)
84	(54)	SIGNED	4	OUCBPINE	Base value for page-in from expanded count (ESA Mode Only, do not use in z/OS)
88	(58)	SIGNED	4	OUCBBKIA	Base value for blocks in aux count
92	(5C)	SIGNED	4	OUCBBKIE	Base value for blocks in expanded count (ESA Mode Only, do not use in z/OS)
96	(60)	SIGNED	2	OUCBSWFC	SWAP IN FAIL COUNT
98	(62)	SIGNED	2	OUCBSFEC	SWAP IN FAIL EVALUATION COUNT
100	(64)	SIGNED	2	OUCBSEEC	SWAP TO EXTENDED EVALUATION FAILURE COUNT
102	(66)	SIGNED	2	OUCBMTRM	COUNT OF TERMWAITS DETECTED BY MS6
104	(68)	ADDRESS	4	OUCBSQFP	secondary oucb queue forward pointer
108	(6C)	ADDRESS	4	OUCBSQBP	secondary oucb queue back pointer
112	(70)	ADDRESS	4	OUCBSPTR	Pointer to OUCBS sampling data
116	(74)	ADDRESS	4	OUCBSAMPLESPTR	Address of set-of-samples section
120	(78)	ADDRESS	4	OUCBREPTSAMPLESPTR	Address of reporting set-of- samples section
124	(7C)	UNSIGNED	4	OUCBXSPECIALFULLPREEMPTTIME	Time, when the OucbxSpecialFullPreempt flag was set or reset
128	(80)	CHARACTER	128	OUCB_CACHELINE4	
128	(80)	CHARACTER	8	OUCBXSMTF30EXPAGERESIDENCYTIME	Page seconds for expanded storage, SMF30 interval (ESA Mode Only, do not use in z/OS)
136	(88)	CHARACTER	8	OUCBXDEPUTIMEFORWM1	CPU time, STCK format, accumulated by dependent enclaves owned by this space but not yet rolled up by WM1
144	(90)	UNSIGNED	2	OUCBXSERVINSTLIMIT	Architectural limit for the number of server instances per server which can be supported by the application
146	(92)	UNSIGNED	2	OUCBXSERVINSTINITIAL	Number of server instances started by WLM if this is the first server which binds to a work queue
148	(94)	UNSIGNED	2	OUCBSERVINSTCAPACITY	Maximum number of server instances, also the maximum number of concurrent IWMSSSEL requests
150	(96)	CHARACTER	2	*	reserved
152	(98)	ADDRESS	4	OUCBWORKQTOKEN	Server Environment Address Space Queue Entry pointer or 7FFFF000
156	(9C)	UNSIGNED	4	OUCBWAITTIMEBASE	Base for I/O wait time (ouxbwait)
160	(A0)	UNSIGNED	4	OUCBUSINGTIMEBASE	Base for I/O using time (ouxbcon + ouxbdisc)

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
164	(A4)	BITSTRING	1	OUCBWLMF	WLM flags, name used in IPCS formatter
		1... ....		OUCBXSPECIALFULLPREEMPT	Special full preemption requested via the FULLPRE sysevent
		.1.. ....		OUCBXMFT	Space target of xmem page faults during this policy interval
		..1. ....		OUCBXNOPR	If off, the address space is eligible for full preemption. The bit is copied to bit ASCBNOPR in module IRACPSRP depending on OPT parms and other conditions.
		...1 ....		*	reserved
		.... 1...		OUCBXWASHIDP	If on, indicates this address space was created with the ASCRE HIPRI attribute, aka oucbhidp was once on. Must be off unless the space is a started task.
		.... .1..		OUCBXRESTARTTRANATSWAPIN	An active transaction was stopped while the space was swapped out. Since some of the bookkeeping required cannot be completed until swap in, this will tweak the behavior in restore complete (RSTORCMP).
		.... ..1.		OUCBXWASPRIV	If on, indicates that in the absence of classification rules that specifically classify this space it would be privileged.
		.... ...1		OUCBXOLDPREEMPTION	Value of AscbNopr when the hidp attribute was removed due to classification of a started task. Meaningless for address spaces that were never hidp.
165	(A5)	CHARACTER	3	*	reserved
168	(A8)	UNSIGNED	4	OUCBXENCSSCHCOUNT	Start subchannel count for completed independent enclaves. Only start subchannels whose times are included in connect, disconnect, and wait measurement are included.
172	(AC)	SIGNED	4	OUCBXFIX_B2G	Count of fixed frames in between the 16M and 2G lines @64BITSRM
176	(B0)	UNSIGNED	1	OUCBESVP	expanded storage access policy for vio (ESA Mode Only, do not use in z/OS)
177	(B1)	UNSIGNED	1	OUCBESHP	expanded storage access policy for hiperspace (ESA Mode Only, do not use in z/OS)
178	(B2)	UNSIGNED	1	OUCBESTP	expanded storage access policy for swap trim (ESA Mode Only, do not use in z/OS)
179	(B3)	UNSIGNED	1	OUCBSONA	# of times a swap-out was not attempted due to lack of resources
180	(B4)	UNSIGNED	4	OUCBMDEL	MPL delay suffered over the current transaction
184	(B8)	UNSIGNED	4	OUCBSWSA	swap working set size accumulator including both primary and secondary working sets (accumulated at swap in time in goal mode)
188	(BC)	UNSIGNED	4	OUCBSWSC	swap working set count - count of working set sizes accumulate in OUCBSWSA
192	(C0)	UNSIGNED	4	OUCBESB1	UIC-expanded bucket 1 (ESA Mode Only, do not use in z/OS)

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
196	(C4)	UNSIGNED	4	OUCBESB2	UIC-expanded bucket 2 (ESA Mode Only, do not use in z/OS)
200	(C8)	UNSIGNED	4	OUCBESB3	UIC-expanded bucket 3 (ESA Mode Only, do not use in z/OS)
204	(CC)	UNSIGNED	4	OUCBESB4	UIC-expanded bucket 4 (ESA Mode Only, do not use in z/OS)
208	(D0)	UNSIGNED	4	OUCBAXPU	Base value for pages paged to aux that is updated when a point is plotted for this address space
212	(D4)	UNSIGNED	4	OUCBPLAB	Base for OUXBPIN to determine number of aux page faults per departure from the current period. For period paging plot.
216	(D8)	SIGNED	4	OUCBEFS	accumulated samples of RAXESCT for determining the average expanded storage allocated for an RM2 interval (ESA Mode Only, do not use in z/OS)
220	(DC)	UNSIGNED	4	OUCBSDAC	Swap delay accumulator
224	(E0)	SIGNED	4	OUCBAPDS	Saved copy of private area paging delay samples
228	(E4)	SIGNED	4	OUCBTMPS	Accumulated time address space is swap in processor storage
232	(E8)	SIGNED	4	OUCBTMCT	Count of times the address space is moved from being swapped in processor storage to aux
236	(EC)	SIGNED	4	OUCBTMSD	Start of time address space is delayed for a swap in from aux
240	(F0)	SIGNED	4	OUCBTMRD	Start of time an address space is experiencing MPL delay
244	(F4)	UNSIGNED	4	OUCBTMC	TIME OF SWAPOUT STAT CHG
248	(F8)	UNSIGNED	4	OUCBXREGISTRATIONCOUNT	number of active registrations owned by this address space
252	(FC)	CHARACTER	4	OUCBCRM	Chronic resource contention management related info
252	(FC)	BITSTRING	1	OUCBCRMFLAGS	CRM status flags
	1... ....			OUCBCRMPROA	CRM promotion caused by A/S resource holder
	.1.. ....			OUCBCRMPROE	CRM promotion caused by enclave resource holder
	..1. ....			OUCBCRMI	CRM promotion was on during PA interval
	...1 ....			OUCBCRMR	CRM promotion was on during RA interval
	.... 1111			*	For future use
253	(FD)	UNSIGNED	1	OUCBCRM DP	CRM calculated dispatch priority
254	(FE)	UNSIGNED	2	OUCBCRM PROPAGATEDCOUNT	Number of propagated CRM promotions
256	(100)	CHARACTER	128	OUCB_CACHELINES	
256	(100)	UNSIGNED	4	OUCBIATK	WLM Classification token from first INITATT sysevent
260	(104)	UNSIGNED	4	OUCBLRPS	RRPATOD last time in RPS
264	(108)	CHARACTER	1	OUCBQID	current queue id
265	(109)	CHARACTER	1	OUCBPQID	previous queue id
266	(10A)	CHARACTER	1	OUCBIQFL	invalid queue flags
267	(10B)	BITSTRING	1	OUCBSMSK	Mask which represents which subsystem this job belongs to (see IWMAIFL mapping)



Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
268	(10C)	UNSIGNED	4	OUCBPINB	policy count base for ouxbpin
272	(110)	UNSIGNED	4	OUCBPINT	policy time base for ouxbpin
276	(114)	UNSIGNED	4	OUCBTAXB	Base for blocked/unblocked page-in from aux (rm2 plotting interval)
280	(118)	UNSIGNED	4	OUCBVHDB	Base for vio & hiperspace page-in from aux (per depature)
284	(11C)	UNSIGNED	4	OUCBVHPB	Base for vio & hiperspace page in from aux (rm2 plotting interval)
288	(120)	UNSIGNED	4	OUCBVHUB	Base for vio & hiperspace aux page units
292	(124)	UNSIGNED	4	OUCBEXIB	Base for OUXBPINE (ESA Mode Only, do not use in z/OS)
296	(128)	UNSIGNED	4	OUCBEXOB	Base for OUXBPOTE (ESA Mode Only, do not use in z/OS)
300	(12C)	UNSIGNED	4	OUCBCRMB	Base for OUXBCRMS (cache hiperspace read miss count)
304	(130)	UNSIGNED	1	OUCBCPUS	Number of CPUs currently running work in this space. Must be recomputed before each use!
305	(131)	CHARACTER	1	OUCBFLGX	More WLM Flags
	1... ....			OUCBACFL	Flag indicating MPL and SWAP delay is being accumulated during period switch. ON = accumulation should not be retried after abend.@OW23722
	.1.. ....			*	Reserved
	..1. ....			OUCBXRPBW	For future use @WI370408
	...1 ....			OUCBXINELIGHONORPRIORITY	When on, specialty engine eligible work in this address space will not be offloaded to CPs for help processing. @OA50845A
	.... 1...			OUCBXSTGPROTNOW	Address space is currently storage- protected. If on, implies that the address space is running in a single period service class that does not have short response time goals _and_ either the space was assigned storage protection explicitly via a classification rule or the space is serving CICS/IMS transactions whose service class was assigned storage protection via a CICS/IMS classification rule
	.... .1..			OUCBXSTGCRIT_SPECIFIED_EXPLICIT	Address space was assigned explicit storage protection, meaning it matched a classification rule which specified storage-critical=yes.
	.... ..1.			OUCBXIGNORETRXNSSPECIFIED	Address space is exempt from being a transaction server. It matched a classification rule which specified manage region to goals = Region. There is no equivalent ...now bit, SRM always observes this setting.
	.... ...1			OUCBXTRXMGMTBOTHSPECIFIED	

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Address space matched a classification rule which specified "Manage Region Using Goals Of BOTH". Which means it is managed towards the velocity goal of the region. But, transaction completions are reported and used for management of the transaction service classes with response time goals. This option should only be used with CICS TORs, the associated AORs should remain at the default "Manage Region Using Goals Of TRANSACTION".
306	(132)	UNSIGNED	2	OUCBPROPAGATEDENQHOLDCOUNT	Count of Enqhols propagated to the address space because of enclave tasks
308	(134)	UNSIGNED	4	OUCBTMF	time that the first swap-out was attempted for a reqswap/tswp/fixed storage shortage swap
312	(138)	SIGNED	4	OUCBEUB1	Unadjusted expanded uic bucket 1 (ESA Mode Only, do not use in z/OS)
316	(13C)	SIGNED	4	OUCBEUB2	Unadjusted expanded uic bucket 2 (ESA Mode Only, do not use in z/OS)
320	(140)	SIGNED	4	OUCBEUB3	Unadjusted expanded uic bucket 3 (ESA Mode Only, do not use in z/OS)
324	(144)	SIGNED	4	OUCBEUB4	Unadjusted expanded uic bucket 4 (ESA Mode Only, do not use in z/OS)
328	(148)	CHARACTER	1	OUCBWM2	Flags
		1... ..		OUCBDFRR	Dequeued by IRARMERR
		.1.. ..		OUCBEFRR	Enqueued by IRARMERR
		..1. ....		OUCBGFRR	Getmaind by IRARMERR
		...1 ....		OUCBWSMT	WSM last set protective processor storage target
		.... 1...		OUCBMDAC	Indicates that the mpl delay for this space has been accumulated
		.... .1..		OUCBSSPS	Shared page second base (oucbspss) is non-zero
		.... ..1.		OUCBRSNS	OUCBNSWI bit set by SRM recovery
		.... ...1		OUCBPSRB	Preemptible SRB time attributable to this address space (AssbAsst) is non-zero
329	(149)	BITSTRING	1	OUCBWL2F	Flags used by WL2, clustered in one byte to reduce pathlength in service calculations
		1... ..		OUCBPSRV	Transaction service preemptible SRB time base (ouxbprss) is non-zero
		.1.. ....		OUCBXDEPENCLTIMEEXISTS	Dependent enclave CPU time exists that may not have been merged into the owning address space's CPU time.
		..11 1111		*	reserved
330	(14A)	UNSIGNED	2	OUCBXDEPENCLCOUNT	Summary count of number of dependent enclaves owned by this address space. Halfword is enough as long as enclave pseudoids are limited to a halfword
332	(14C)	ADDRESS	4	OUCBENCH	Header of the ENCB queue owned by this address space
336	(150)	ADDRESS	4	OUCBENCL	Trailer of the ENCB queue owned by this address space

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
340	(154)	ADDRESS	4	OUCBETIM	Accumulate tx active time of completed enclaves owned by this space
344	(158)	ADDRESS	4	OUCBECPU	Accumulate CPU service of completed enclaves owned by this space
348	(15C)	BITSTRING	8	OUCBECPT	Accumulate total CPU time of completed enclaves owned by this space (STCK format)
356	(164)	ADDRESS	4	OUCBETRC	Accumulate transaction counts of completed enclaves owned by this space
360	(168)	CHARACTER	16	OUCBENQMANAGEMENT	Enq related info
360	(168)	BITSTRING	2	OUCBENQFLAGS	Enq status flags
	1... ....			OUCBENQP	Increase CPU DP for enqueue promotion
	.1... ....			OUCBPROA	Enqueue promotion due to A/S EnqHold
	..1. ....			OUCBPROE	Enqueue promotion due to enclave EnqHold
	...1 ....			OUCBCQHASBEENCORRUPTED	Context queue had invalid elements
360	(168)	BITSTRING	1	*	For future use
362	(16A)	UNSIGNED	2	OUCBNQC	Number of enqueue hold elements in OUCB context queue
364	(16C)	SIGNED	4	OUCBNQT	ENQ residency start time
368	(170)	SIGNED	4	OUCBENQCPUTIMECONSUMEDBASE	Reference value to calculate OUCBEnqCPUtimeConsumed. 1.024 milliseconds unit@WLMPEMG
372	(174)	SIGNED	4	OUCBENQCPUTIMECONSUMED	CPU time consumed for and A/S or Job while enqueue promoted. 1.024 milliseconds unit@WLMPEMG
376	(178)	CHARACTER	8	OUCBCONTEXTQUEUE	Queue of context elements
376	(178)	ADDRESS	4	OUCBCONTEXTQUEUEHEAD	address of 1st element in queue
380	(17C)	ADDRESS	4	OUCBCONTEXTQUEUETAIL	address of last element in queue
384	(180)	CHARACTER	128	OUCB_CACHELINE6	
384	(180)	ADDRESS	4	OUCBGRLU	Address of the Generic Resource LU Object
388	(184)	SIGNED	4	OUCB_RAW_SERVICE_ACCUM	Raw service accumulator. Note: This field is provided on a 10 second policy interval basis to represent the raw service (CPU & SRB) accumulated in the current policy interval. This field is cleared each time IRAPASDC is invoked
392	(188)	ADDRESS	4	OUCB_BPAH	Pointer to address space buffer pool header if address space has ever owned buffer pools
396	(18C)	SIGNED	4	OUCBFRAMESTOBESTOLENBYRSM	Number of frames that RSM is requested to steal from this address space
400	(190)	BITSTRING	8	OUCBSPSS	Shared page seconds
408	(198)	ADDRESS	4	OUCBXJAFBADDR	Pointer to Jafb sect
412	(19C)	UNSIGNED	4	OUCBX_RSTORCMP_TIME	Time when the address space came in (End of RSTORCMP).
416	(1A0)	BITSTRING	8	OUCBASST	Base Preemptable SRB time used in AP1, loaded from AssbAsst.
424	(1A8)	BITSTRING	8	OUCBSRST	Shared page residency time (central storage)

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
432	(1B0)	ADDRESS	4	OUCBSCLS	Service class & report class is saved during tso logon termination through change period to SRMG00D class
432	(1B0)	UNSIGNED	2	OUCBSSCI	goal mode: Workload reporting saved service class index
434	(1B2)	UNSIGNED	2	OUCBSRCI	goal mode: Workload reporting saved report class index
436	(1B4)	CHARACTER	8	OUCBETCBQ	DHDTC queue of IRAETCBs
436	(1B4)	ADDRESS	4	OUCBETCBFIRST	First ETCB on queue
440	(1B8)	ADDRESS	4	OUCBETCBLAST	Last ETCB on queue
444	(1BC)	CHARACTER	8	OUCBXDETOTALCPUTIME	CPU time, STCK format, accumulated by all completed dependent enclaves owned by this space during its current transaction as in CASE
452	(1C4)	UNSIGNED	2	OUCBSCPI	Service Class Period Index. Used by IOS as an index into the IOSDSCMT. Matches spte_number in the spte pointed to by OucbSpte. 0 is not a valid index.
454	(1C6)	CHARACTER	2	*	
456	(1C8)	UNSIGNED	4	OUCBXIEIOCONNECTTIME	Sum of EncbCon for all completed independent enclaves, smf 30 interval
460	(1CC)	UNSIGNED	4	OUCBXIEIODISCONNECTTIME	Sum of EncbDisc for all completed independent enclaves, smf 30 interval
464	(1D0)	UNSIGNED	4	OUCBXIEIOWAITTIME	Sum of EncbWait for all completed independent enclaves, smf 30 interval
468	(1D4)	UNSIGNED	4	OUCBXIESSCHCOUNT	Sum of EncbIoSc for all completed independent enclaves, smf 30 interval
472	(1D8)	CHARACTER	16	OUCBX_DE	Separate buckets are needed for dependent enclaves because the data must be rolled up to the owning address space at enclave end, but there is no guarantee that the owner is swapped in. If the owner were swapped out its Ouxb would be inaccessible and there would be no place to put the data
472	(1D8)	UNSIGNED	4	OUCBXDEIOCONNECTTIME	Sum of EncbCon for all completed dependent enclaves, smf 30 interval
476	(1DC)	UNSIGNED	4	OUCBXDEIODISCONNECTTIME	Sum of EncbDisc for all completed dependent enclaves, smf 30 interval
480	(1E0)	UNSIGNED	4	OUCBXDEIOWAITTIME	Sum of EncbWait for all completed dependent enclaves, smf 30 interval
484	(1E4)	UNSIGNED	4	OUCBXDESSCHCOUNT	Sum of EncbIoSc for all completed dependent enclaves, smf 30 interval
488	(1E8)	SIGNED	2	OUCBXPERFORMVALUE	Contains the value passed for the PERFORM= keyword. This value is preserved across a mode switch and is used during Goal Mode classification.
490	(1EA)	BITSTRING	2	OUCBXFLAGS	
490	(1EA)	BITSTRING	1	OUCBXFLAGS1	@WI370408
	1... ....			OUCBXRESETBEFOREINITIATION	On if JobSelect passed in a RESET SRVCLASS for a batch job that would be used to override classification.
	.1.. ....			OUCBXRESETAFTERINITIATION	On if address space was reset while it was running.
	..1. ....			OUCBXOPERATORFORCEDINITIATION	

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
					On if JobSelect said that the initiation was forced upon JES, e.g. via \$SJ
		...1 ....		OUCBXJOBREINCARNATED	On if job has been restarted
		.... 1...		OUCBXSYST	System task, that is, the PPT and/or SCHEDxx specified SYST and it passed allocation checks.
		.... .1..		OUCBXHASREMOTESYSTEMDATA	This address space has Remote System Data. The data exists either at the address space level or at an owned original enclave level.
		.... ..1.		OUCBXREMOTESYSTEMDATAINCOMPLETE	Indicates the address space Remote System Data is not complete for the following reasons: Premature Undo Export - Subsystem deletes the enclave before the Undo Export - There are outstanding Imports (determined by WLM) at Undo Export time
		.... ...1		OUCBXCANCEL	indicates that sysevent CANCEL was issued
491	(1EB)	BITSTRING	1	OUCBXFLAGS2	@WI370408
		1... ....		OUCBXNONCANCELABLE	The address space is non cancelable. In the PPT and/or SCHEDxx the NOCANCEL keyword is specified for the program
		.1.. ....		OUCBX_RGROUP_TRICKLE	the AS was non-dispatchable when it should have gotten trickles @ME28059C
		..11 ....		*	reserved @ME28059C
		.... 1111		*	reserved
492	(1EC)	UNSIGNED	4	OUCBXDEENQCPUTIMECONSUMED	Sum of CPU time consumed while enqueue promoted for all completed dependent enclaves.
496	(1F0)	UNSIGNED	4	OUCBENQCPUTIMECONSUMEDI	Interval CPU time consumed while enqueue promoted. 1.024 milliseconds unit@WLMPEM2
500	(1F4)	BITSTRING	1	OUCBIRSFIELDS	REALSWAP / TRANSWAP (ESAME mode) flags. See also REALSWAP / TRANSWAP sysevent, where the phase is explained.
		1... ....		OUCBGENERICIRS	The flag is set when a REALSWAP or Transwap request is passed to RCT (Phase R-P2 and T-P2).
		.1.. ....		OUCBREALSWAREINRSM	The flag is set when a REALSWAP request is passed to RCT (R-P2) The address space should be logically swapped while this bit is on. Memory of the current realswap request moves from oucbirsw to here when RCT is told to execute it.
		..1. ....		OUCBTRANSWAREINRSM	The flag is set when a TRANSWAP request is passed to RCT (T-P2) The address space should be logically swapped while this bit is on. Memory of the current transwap request remains in oucbtwsp.
		...1 ....		*	reserved
		.... 1...		OUCBXNOIARYBLSWCALL	Do not call in Realswap Type=Complete the RSM module IARYBLSW.

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		OUCBREALSWAREDRIVE	This flag is set when a REALSWAP request has failed in RSM. The flag stays on while SRM redrives the request.
		.... ..1.		OUCBTRANSWAREDRIVE	This flag is set when a TRANSWARE request has failed in RSM. The flag stays on while SRM redrives the request. 1@ME23305D
501	(1F5)	UNSIGNED	1	OUCBXOUCBSRCSAVE	Saved value of OUCBSRC during a REALSWAP
502	(1F6)	CHARACTER	1	*	Reserved
503	(1F7)	BITSTRING	1	OUCBXRAXSWAPREASON	This fields saves the RAX information, as long the REALSWAP is pending.
504	(1F8)	UNSIGNED	4	OUCBIRST	RRPATOD last time in REALSWAP
508	(1FC)	UNSIGNED	4	OUCBREALSWAREPRSMFAILEDTIME	Save the time when RCT notified SRM that RSM was unable to complete a REALSWAP or TRANSWARE in memory. Usually set in sysevent realswap,type=completion but can also be set via quiesce fail if the failure occurred while such a request was in progress. The TRANSWARE or REALSWAP fail flag is set simultaneously.
512	(200)	CHARACTER	0	*	fill up cache line
512	(200)	CHARACTER	128	OUCB_CACHELINE7	
512	(200)	SIGNED	4	OUCBXCLSFPRIORITY	Subsystem priority used for classification purposes, in binary format. Contains hexadecimal 80000000 if the subsystem did not provide a priority.
516	(204)	UNSIGNED	4	OUCBXQUEUETIME	Duration of time work was eligible for execution. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
520	(208)	UNSIGNED	4	OUCBXJCLCONVERSIONTIME	Duration of JCL conversion for batch job. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
524	(20C)	UNSIGNED	4	OUCBXSYSORRESAFFTIME	Duration that batch job was ineligible for execution on every system in the MAS due to resource or system affinity. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
528	(210)	UNSIGNED	4	OUCBXINELIGIBLETIME	Duration that batch job was ineligible for execution on every system in the MAS for reasons other than affinities. Examples: job hold, job class hold. TYPRUN=HOLD and TYPRUN= JCLHOLD times are excluded from all of these times. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
532	(214)	CHARACTER	16	OUCBXSCHEDEV	Resource affinity scheduling environment requested in the JCL, or 00x if none was supplied

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
548	(224)	UNSIGNED	4	OUCBXEQUBATCHQDELAY	Equivalent batch queue delay samples.
552	(228)	UNSIGNED	4	OUCBXTOTALSERVICEBASE	Base for total service used by address space over a policy interval
556	(22C)	UNSIGNED	4	OUCBXIOWAITTIMEINTVBASE	Interval base for OUXBWAIT
560	(230)	UNSIGNED	4	OUCBXIOCONTIMEINTVBASE	Interval base for OUXBCON
564	(234)	UNSIGNED	4	OUCBXIOCOUNTINTVBASE	Interval base for OUXBIOSC
568	(238)	UNSIGNED	4	OUCBXIODISCTIMEINTVBASE	Interval base for OUXBDISC
572	(23C)	UNSIGNED	4	OUCBXIOSQTIMEINTVBASE	Interval base for OucbxIosQtime
576	(240)	ADDRESS	4	OUCBXCRRB	Pointer to CRRB for address space
580	(244)	ADDRESS	4	OUCBXCRA	Pointer to CRA
584	(248)	BITSTRING	8	OUCBCAPB	Base value for captured CPU time that is updated when a point is plotted for this address space.
592	(250)	UNSIGNED	4	OUCBXREMOTESERVICE	The number of service units consumed by multisystem dependent enclaves on other systems. Maintained in goal mode only.
596	(254)	ADDRESS	4	OUCBXREMOTESYSTEMDATAPTR	Pointer to the Foreign Enclave AcctData(FEAD) which is used for SMF30 data reporting
600	(258)	UNSIGNED	4	OUCBXLATCHCOUNT	Latch count that indicates whether address space is holding any latches
604	(25C)	UNSIGNED	4	OUCBXPERIODSTARTREMOTESERVICE	Amount of remote service attributed to starting the address space's current period
608	(260)	UNSIGNED	4	OUCBXARRIVALTIMESTCKWORD1	Time that work unit entered MVS system - STCK format, 1st word only
612	(264)	UNSIGNED	4	OUCBX_CONNTIME_BASE	RM2 interval base for OUXBCONN
616	(268)	CHARACTER	8	OUCBXSUBSYSTEMCOLLECTIONNAME	Subsystem collection name corresponding to IWMCLSFY SUBCOLN value. For JES2/JES3, MAS/JESplex name. Blanks for other address spaces.
624	(270)	BITSTRING	4	OUCBX_GMI_F1	Flags
	1... ....			OUCBX_STCR_CHSK	Indicates, that storage critical housekeeping was the last who has set the central storage protective target
	.1.. ....			OUCBX_STCR_PHSK	Indicates, that storage critical housekeeping was the last who has set the processor storage protective target
	..1. ....			OUCBX_PA_PCS_TAR	Indicates, that policy adjustment was the last who has set the central storage protective target
	...1 ....			OUCBX_PA_PPS_TAR	Indicates, that policy adjustment was the last who has set the processor storage protective target
628	(274)	UNSIGNED	4	OUCBX_PPS_CHANGETIME	Time of last processor protective storage target setting
632	(278)	UNSIGNED	4	OUCBX_PCS_CHANGETIME	Time of last central protective storage target setting
636	(27C)	UNSIGNED	4	OUCBX_QSCEST_TIME	Time when the OUCBQSS flag was set.
640	(280)	CHARACTER	128	OUCB_CACHELINE8	
640	(280)	CHARACTER	64	OUCBX_SPECPURPOSEPROC	zIIP data for service time calculation.

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
640	(280)	BITSTRING	8	OUCBX_BASE_SERVTIME_ON_PRO(2)	Base for service time calculation for zIIP work. 1 - Java zIIP eligible time on zIIP, 2 - zIIP eligible time on zIIP
656	(290)	BITSTRING	8	OUCBX_BASE_SERVTIME_PRO_ON_CP(2)	Base for service time calculation for zIIP work that runs on CP. 1 - Java zIIP eligible time on CP, 2 - zIIP eligible time on CP
672	(2A0)	CHARACTER	8	*	reserved
680	(2A8)	UNSIGNED	4	OUCBXPROTRXSERVICEUNITS(2)	accumulator for special processor transaction service units
688	(2B0)	BITSTRING	8	OUCBXDEPENCPROTIMEFORWM1(2)	zIIP time spent for enclaves owned by this address space but not yet rolled up by WM1. 1 - Java zIIP eligible time on zIIP, 2 - zIIP eligible time on zIIP
704	(2C0)	UNSIGNED	2	OUCBXEXPRESS	express user bits
	1... ....			OUCBCRMP	CRM promotion process is active
706	(2C2)	BITSTRING	8	OUCBX_TIME_AT_PDP	time at promotion DP (trickle support)
714	(2CA)	BITSTRING	8	OUCBX_TIME_AT_PDP_BASE	Base for time at promotion DP (STCK format)
722	(2D2)	CHARACTER	2	*	reserved for future
724	(2D4)	UNSIGNED	4	OUCBX_TIME_AT_PDP_LEFTOVER	time at prom. DP not yet converted
728	(2D8)	CHARACTER	8	*	Reserved
736	(2E0)	CHARACTER	8	OUCBX_SHORTTIME	Short time enqueue management data
736	(2E0)	UNSIGNED	2	OUCBNQC_STANDARD	EnqHold counter for standard enqueue promotion
738	(2E2)	UNSIGNED	2	OUCBNQC_SHORTTIME	EnqHold counter for short time enqueue promotion
740	(2E4)	SIGNED	4	OUCBNQT_SHORTTIME	Start time of promotion interval for short time enqueue promotion
744	(2E8)	CHARACTER	9	OUCBX203E403E	IRA203E and IRA403E processing
744	(2E8)	SIGNED	4	OUCBX403TOTFRAMES	Frame count at the time, the address space was selected to resolve the storage shortage.
744	(2E8)	SIGNED	4	OUCBX203TOTFRAMESSLOTS	Frame + slot count at the time, the address space was selected to resolve the axilliary shortage.
748	(2EC)	SIGNED	4	OUCBX403TOTFIXED	Fixed frame count at the time address space was selected to resolve the storage shortage.
748	(2EC)	SIGNED	4	OUCBX203RATE	Slot allocation rate at the time the address space is selected to resolve the AUX shortage.
752	(2F0)	BITSTRING	1	OUCBX03FLAGS	Flag bits
	1... ....			OUCBX403REQUIRED	Set when the address space is selected to resolve a fixed storage shortage. The message is deferred to swap out complete.



Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		OUCBX203REQUIRED	Set when the address space is selected to resolve a fixed storage shortage. The message is deferred to swap out complete.
753	(2F1)	BITSTRING	1	OUCBFXSREASON	Fixed Storage Processing: Reason why OUCBFXS and which shortage was already resolved
		1111 ....		OUCBFXSRSV4	Reserved
		.... 1...		OUCBFXSBETWEEN16M2G	Between 16M and 2G
		.... .1..		OUCBFXSBELOW16M	Below 16M
		.... ..1.		OUCBFXSALL	In all real frames
		.... ...1		OUCBFXSDREF	In DREF and Fixed
754	(2F2)	BITSTRING	1	OUCBXCOFLG	z/OS Container flags
		1... ....		OUCBX_CNTNRID_SUPPLIED	A container ID has been supplied. It is stored in the data area pointed to by OUCBXCOP.
		.1.. ....		OUCBX_CNTNRQUAL_SUPPLIED	container qualifier has been supplied. It is stored in the data area pointed to by OUCBXCOP.
755	(2F3)	CHARACTER	1	*	Reserved for future container flags
756	(2F4)	ADDRESS	4	OUCBXCOP	Pointer to container information (mapped by IRACNTNR). OUCBXCOFLG should be checked before referencing container information.
760	(2F8)	CHARACTER	8	OUCBXSTEPSTARTTIME	Step start time used to calculate the in storage time
768	(300)	CHARACTER	128	OUCB_CACHELINE9	
768	(300)	CHARACTER	64	OUCBEWLMDATA	Block for EWLM Data
768	(300)	CHARACTER	8	OUCBEWLMTCBTIME	Total TCB time since address space started
776	(308)	CHARACTER	8	OUCBEWLMSRBTIME	Total SRB time since address space started
784	(310)	CHARACTER	16	OUCBEWLMPID	EWLM Process ID
800	(320)	BITSTRING	4	OUCBEWLFLAGS	EWLM flag bits
		1... ....		OUCBEWLMISARMREGED	Address space registered with ARM
		.1.. ....		OUCBEWLMISEWLMAGENT	Address space has connected as EWLM managed <code>svr@WLMPEW2</code>
		..1. ....		OUCBEWLMARMNOTACTIVE	ARM has been disabled while this address space was registered with ARM
		...1 ....		OUCBEWLMENCCONNYES	The workmanager connected with EWLM=YES
		.... 1...		OUCBEWLWASDISABLED	ARM disable was issued during the lifetime of this address space while AS was registered with ARM. This bit will never be turned off until AS terminates
804	(324)	CHARACTER	8	OUCBEWLMTASKRM	Task RESMGR token
812	(32C)	CHARACTER	8	OUCBEWLMAARM	AS RESMGR token
820	(334)	CHARACTER	12	OUCBEWLMRESERVED	Reserved for EWLM
832	(340)	BITSTRING	8	OUCBX_BA_AS_TTIME_BASE	Base for balancer AS calculations
840	(348)	BITSTRING	8	OUCBX_BA_AS_IFA_TIME_BASE	Base for balancer AS IFA calculations
848	(350)	BITSTRING	8	OUCBXENCSTIMEQUAL	Qualified SUP time of enclaves owned by this space
856	(358)	BITSTRING	8	OUCBXDEPENCSUPTIMEQUAL	Qualified SUP time of dependent enclaves owned by this space

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
864	(360)	BITSTRING	8	OUCBX_BA_AS_IOC_TIME_BASE	Base for balancer AS IFA on CP calculations@WLMPECL
872	(368)	BITSTRING	8	OUCBX_BA_AS_SUP_TIME_BASE	Base for balancer AS SUP calculations
880	(370)	BITSTRING	8	OUCBX_BA_AS_SOC_TIME_BASE	Base for balancer AS SUP on CP calculations@LVCMZIA
888	(378)	UNSIGNED	4	OUCBX_BA_BRKLATENCY	HD Brk latency
892	(37C)	CHARACTER	4	*	fill up cache line
896	(380)	CHARACTER	128	OUCB_CACHELINE10	
896	(380)	CHARACTER	64	OUCB_RCOLL	Special purpose processor (zAAP, zIIP) accumulators for service time that is reported via the IWMRCOLL interface
896	(380)	BITSTRING	8	OUCBX_TIME_ON_PRO(2)	Time spent for work running on special processor, in service units scaled with 2**20
912	(390)	BITSTRING	8	OUCBX_TIME_PRO_ON_CP(2)	Time spent on CP for special processor work, in service units scaled with 2**20
928	(3A0)	BITSTRING	8	OUCBX_TIME_ON_PRO_BASE(2)	Base for processor time calculation (STCK format)
944	(3B0)	BITSTRING	8	OUCBX_TIME_PRO_ON_CP_BASE(2)	Base for Processor_On_CP time calculation (STCK format)
960	(3C0)	CHARACTER	64	OUCB_SVDAT	zIIP accumulators for service time that is reported via the REQSVDAT interface (STCK format)
960	(3C0)	BITSTRING	8	OUCBXENCTIMEONPRO(2)	Time of completed enclaves owned by this address space. 1 - Java zIIP eligible time on zIIP, 2 - zIIP eligible time on zIIP
976	(3D0)	BITSTRING	8	OUCBXDEPENCTIMEONPRO(2)	Time of completed dependent enclaves owned by this address space. 1 - Java zIIP eligible time on zIIP, 2 - zIIP eligible time on zIIP
992	(3E0)	BITSTRING	8	OUCBXENCTIMEPROONCP(2)	zIIP on CP time of completed enclaves owned by this address space. 1 - Java zIIP eligible time on CP, 2 - zIIP eligible time on CP
1008	(3F0)	BITSTRING	8	OUCBXDEPENCTIMEPROONCP(2)	zIIP on CP time of completed dependent enclaves owned by this address space. 1 - Java zIIP eligible time on CP, 2 - zIIP eligible time on CP
1024	(400)	CHARACTER	128	OUCB_CACHELINE11	
1024	(400)	BITSTRING	8	OUCBXTASKTIMEONCP	Time of TASK MODE on CP
1032	(408)	BITSTRING	8	OUCBXSRTIMEONCP	Time of SRB MODE on CP
1040	(410)	BITSTRING	8	OUCBCPUL	Accumulate scaled CPU service
1048	(418)	BITSTRING	8	OUCBSRBL	Accumulate scaled SRB service
1056	(420)	BITSTRING	8	OUCBXRSTORFLTIME	Time the last RstorFl occurred
1064	(428)	BITSTRING	1	OUCBXRSTORFLTYPE	Rstorfl type information
		1... ....		OUCBXRSTORFLTYPE1	Type=FramesNotRestored
1065	(429)	BITSTRING	1	OUCBXRSTORFLFLAG	Flags
		1... ....		OUCBXRSTORFLREDRIVE	Wait for redrive
1066	(42A)	CHARACTER	1	OUCBXRSTORFLRSV3	reserved

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1067	(42B)	BITSTRING	1	OUCBXNSWDPREASON	OUCBNSWDP flags
		1... ....		OUCBXNSWDPREASONFIXED	Set non dispatchable, because system is in a pageable storage shortage
		.1.. ....		OUCBXNSWDPREASONAUX	Set non dispatchable, because system is in a auxillary storage shortage
1068	(42C)	SIGNED	4	OUCBXRSTORFLRSV4	reserved
1072	(430)	CHARACTER	16	OUCBCRMCPUTIME	CRM (chronic resource contention management) fields
1072	(430)	SIGNED	4	OUCBCRMCPUTIMECONSUMEDBASE	Reference value to calculate OUCBCrmCPUtimeConsumed. 1.024 milliseconds unit@LENQP3I
1076	(434)	SIGNED	4	OUCBCRMCPUTIMECONSUMED	CPU time consumed for and A/S or Job while promoted due to resource contention. 1.024 milliseconds unit@LENQP3I
1080	(438)	UNSIGNED	4	OUCBXDECRMCPUTIMECONSUMED	Sum of CPU time consumed while promoted due to resource contention for all completed dependent enclaves.
1084	(43C)	UNSIGNED	4	OUCBCRMCPUTIMECONSUMEDI	Interval CPU time consumed while enqueue promoted. 1.024 milliseconds unit@LENQP3I
1088	(440)	CHARACTER	64	OUCBXSMF30	SMF30 service units related fields
1088	(440)	BITSTRING	8	OUCBECPL	Accumulate scaled CPU service of completed enclaves owned by this space
1096	(448)	BITSTRING	8	OUCBMSOL	Deprecated (MS0 service no longer accumulated)
1104	(450)	BITSTRING	8	OUCBTRSL	Accumulate scaled transaction service
1112	(458)	BITSTRING	8	OUCBWMSL	Interval service Accumulator long
1120	(460)	CHARACTER	16	*	reserved
1136	(470)	BITSTRING	8	OUCBCPUG	Interval CPU Service Accum long
1144	(478)	BITSTRING	8	OUCBSRBG	Interval SRB Service Accum long
1152	(480)	CHARACTER	128	OUCB_CACHELINE12	
1152	(480)	ADDRESS	8	OUCBXSTMA	STMA pointer 2@LST64CD
1160	(488)	SIGNED	4	OUCBXFIXEDINCVALUE	Fixed frame inc.
1164	(48C)	SIGNED	4	OUCBXVIRTINCVALUE	Virtual increase
1168	(490)	BITSTRING	8	OUCBX_JAVA_ON_ZIIP_TIME	Java on zIIP time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1176	(498)	BITSTRING	8	OUCBX_JAVA_ON_CP_TIME	Java on CP time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1184	(4A0)	BITSTRING	8	OUCBX_IFA_TIME	IFA time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1192	(4A8)	BITSTRING	8	OUCBX_SUP_TIME	SUP time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1200	(4B0)	BITSTRING	8	OUCBX_IFACP_TIME	IFA on CP time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1208	(4B8)	BITSTRING	8	OUCBX_SUPCP_TIME	SUP on CP time for IRAEVREQ to get in sync with OUCBCPU in IRARMWL2
1216	(4C0)	BITSTRING	8	OUCBX_HDLOCKPROMOTION_TIME_AT_PDP	HD lock time at promotion DP
1224	(4C8)	BITSTRING	8	OUCBX_HDLOCK_TIME_AT_PDP_BASE	Base for HD lock time at PDP

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1232	(4D0)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_LEFTOVER	HD lock time at promotion DP not yet converted
1236	(4D4)	CHARACTER	16	OUCBX_PROMOTION	Fields used to accumulate Enqueue promotion time and resource contention promotion time
1236	(4D4)	UNSIGNED	4	OUCBX_PROMOTIONBASE	Start time of A/S promotion in 1.024 millisecs
1240	(4D8)	SIGNED	4	OUCBX_PROMOTIONTIMEACCUM	Accumulated promotion time since last samples gathering invocation in 1.024 millisecs
1244	(4DC)	SIGNED	4	OUCBX_PROMOTIONADJF	Promotion adjustment factor. This is the proportion of the promotion time for the actual samples gathering interval * 1000
1248	(4E0)	UNSIGNED	4	OUCBX_TIMEOFLASTSAMPLESGATHERING	Invocation time of last samples gathering in 1.024 millisecs
1252	(4E4)	SIGNED	4	OUCBXHH_LOCK	Control word to serialize access to the health history
1256	(4E8)	CHARACTER	24	OUCBXHH	Health history. Fields to maintain the history of health factors (OucbHealthInd) being reported for the address space via services IWMRSRG or IWM4HLTH
1256	(4E8)	UNSIGNED	4	OUCBXHH_UPDATE#	Update event counter of history queue
1260	(4EC)	UNSIGNED	2	OUCBXHH_ELEM#	Number of elements on the history queue
1262	(4EE)	BITSTRING	2	OUCBXHH_FLAGS	Flags
		1... ....		OUCBXHH_RESET	Current OucbHealthInd set by function=reset
1264	(4F0)	ADDRESS	8	OUCBXHH_ADDR	Address of queue with history elements, see Oucbh_Elem
1272	(4F8)	CHARACTER	8	OUCBXHH_TIMEWHENRESET	Time when last reset of OucbHealthInd took place (STCK format)
1280	(500)	CHARACTER	128	OUCB_CACHELINE13	
1280	(500)	BITSTRING	8	OUCBX_VARTIME_AT_PDP	Time promoted to a variable dispatch priority by supervisor
1288	(508)	BITSTRING	8	OUCBX_VARTIME_AT_PDP_BASE	Base for time promoted to var DP
1296	(510)	BITSTRING	8	OUCBX_VARWEIGHTED_TIME_AT_PDP	Time promoted to variable dispatch priority by supervisor weighted by dispatch priority
1304	(518)	BITSTRING	8	OUCBX_VARWEIGHTED_TIME_AT_PDP_BASE	Base for time promoted to var DP weighted by dispatch priority
1312	(520)	BITSTRING	8	OUCBLPSS	Large page seconds
1320	(528)	BITSTRING	8	OUCBLRST	Large page residency time
1328	(530)	BITSTRING	4	OUCBX_BA_CI	HD control information area
1328	(530)	BITSTRING	2	OUCBX_BA_CIFLAGS	Flags
		1... ....		OUCBX_BA_ASWASSPLIT	TCB sampling was active
1330	(532)	BITSTRING	2	*	reserved
1332	(534)	CHARACTER	28	OUCBX_SPECREPT	Special reporting data
1332	(534)	CHARACTER	4	*	reserved to align to dword boundary

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1336	(538)	BITSTRING	8	OUCBXPBCP	Transaction service units on standard CP reported for PBs running in this address space
1344	(540)	BITSTRING	8	OUCBXPBOFFLOAD	Transaction service units on offload engines reported for PBs running in this address space
1352	(548)	BITSTRING	8	OUCBXPBOFFLOADONCP	Transaction service units on standard CP that were offload eligible reported for PBs running in this address space
1360	(550)	BITSTRING 1... ..	1	OUCBXMEMPOOLFLG OUCBXMEMPOOLFLG_POOLASSOCIATED	Memory Pool Flags @0A50845A  This address space is associated to a memory pool @0A50845A
1361	(551)	CHARACTER	7	*	reserved
1368	(558)	UNSIGNED	8	OUCBX2GRST	2G memory objects residency time
1376	(560)	CHARACTER	32	*	reserved
1408	(580)	CHARACTER	128	OUCB_CACHELINE14	
1408	(580)	CHARACTER	18	OUCBX_BA_BRKLOC	HD Breakup location info
1408	(580)	CHARACTER	6	OUCBX_BA_BRKLOCELM(3)	Location element for each processor type which describes the breakup environment of this address space or 0
1426	(592)	CHARACTER	18	OUCBX_BA_LOC	HD processor topology location info
1426	(592)	CHARACTER	6	OUCBX_BA_LOCELM(3)	Location element for each processor type or 0
1444	(5A4)	CHARACTER	3	OUCBX_BA_FLAG_AREA	HD status flags
1444	(5A4)	BITSTRING 1... ..	1	OUCBX_BA_FLAGS(3) OUCBX_BA_HIGHSTORAGECONSUMER	HD flag area for each processor type  High storage consumer
		.111 1111		*	reserved
1447	(5A7)	BITSTRING	1	*	reserved
1448	(5A8)	UNSIGNED	8	OUCBX_BA_MEMSCORE	Memory score
1456	(5B0)	CHARACTER	4	*	reserved
1460	(5B4)	CHARACTER	24	OUCBX_SPECREPTRC	Special reporting data for report classes
1460	(5B4)	BITSTRING	8	OUCBXPBCP_RC	Transaction service units on standard CP reported for PBs running in this address space
1468	(5BC)	BITSTRING	8	OUCBXPBOFFLOAD_RC	Transaction service units on offload engines reported for PBs running in this address space
1476	(5C4)	BITSTRING	8	OUCBXPBOFFLOADONCP_RC	Transaction service units on standard CP that were offload eligible reported for PBs running in this address space
1484	(5CC)	CHARACTER	40	*	reserved
1524	(5F4)	CHARACTER	12	OUCBX_TRC	Tenant report class (RPTE) information
1524	(5F4)	ADDRESS	4	OUCBXRPTE	RPTE pointer. 7FFFF000 if no tenant report class is connected with address space
1528	(5F8)	ADDRESS	4	OUCBX_TRC_Q_NEXT	Tenant report class queue next pointer. Next address space connected to RPTE

Table 992. Structure OUCBX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1532	(5FC)	ADDRESS	4	OUCBX_TRC_Q_PREV	Tenant report class queue prev pointer. Previous address space connected to RPTE
1536	(600)	CHARACTER	128	OUCB_CACHELINE15	
1536	(600)	CHARACTER	88	OUCBXSTCK	Values in TOD format needed to calculate transaction times in microsecond units (support for shorter response time goals)
1536	(600)	BITSTRING	8	OUCBXSTCKWKTM	Time work unit entered the MVS system. Same as OucbWkTm but in TOD format
1544	(608)	BITSTRING	8	OUCBXSTCKTMO	Transaction start time. Same as OucbTMO but in TOD format
1552	(610)	BITSTRING	8	OUCBXSTCKTMS	Time of last swap action. Same as OucbTMS but in TOD format
1560	(618)	BITSTRING	8	OUCBXSTCKTMSD	Start of time an address space is delayed for a swap-in from AUX. Same as OucbTMSD but in TOD format
1568	(620)	BITSTRING	8	OUCBXSTCKTMRD	Start of time an address space is experiencing MPL delay. Same as OucbTMRD but in TOD format
1576	(628)	BITSTRING	8	OUCBXSTCKMDEL	MPL delay suffered over the current transaction. Same as OucbMDEL but amount of time is in TOD format
1584	(630)	BITSTRING	8	OUCBXSTCKSDAC	Swap delay accumulator. Same as OUCBSDAC but amount of time is in TOD format
1592	(638)	BITSTRING	8	OUCBXSTCKQUEUEETIME	Same as oucbxQueueTime but amount of time is in TOD format
1600	(640)	BITSTRING	8	OUCBXSTCKSYSORRESAFFTIME	Same as oucbxSysOrResAffTime but amount of time is in TOD format
1608	(648)	BITSTRING	8	OUCBXSTCKJCLCONVERSIONTIME	Same as oucbxJclConversionTime but amount of time is in TOD format
1616	(650)	BITSTRING	8	OUCBXSTCKINELIGIBLETIME	Same as oucbxIneligibleTime but amount of time is in TOD format
1624	(658)	CHARACTER	7	OUCBXNQ	Long time enqueue management data @WI370909
1624	(658)	SIGNED	4	OUCBNQT_LONGTIME	Start time of promotion interval for long time enqueue promotion @WI370909
1628	(65C)	UNSIGNED	2	OUCBNQC_LONGTIME	EnqHold counter for long time enqueue promotion @WI370909
1630	(65E)	BITSTRING	1	OUCBENQHPENDING	EnqHold pending flags @WI370909
		1... ....		OUCBENQHPENDSTD	standard EnqHold pending @WI370909
		.1.. ....		OUCBENQHPENDLONG	long EnqHold pending @WI370909
1631	(65F)	UNSIGNED	1	OUCBX_RAW_SERVICE_IDX	Index to the most recent window pane of Oucbx_Raw_Service. Valid range 1-7. @0A66312A
1632	(660)	SIGNED	4	OUCBX_RAW_SERVICE(7)	7 window panes of 10s to compute a 60s window. OucbWMS without zIIP, only collected if address space is classified to SYSSTC. @0A66312C
1660	(67C)	CHARACTER	4	*	Reserved @0A66312C
1664	(680)	CHARACTER	0	OUCBXEND	End of OUCBX @0A50845A

Table 993. Structure OUCBS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	640	OUCBS	
0	(0)	CHARACTER	128	OUCBS_CACHELINE1	cache line of OUCB
0	(0)	CHARACTER	16	OUCBSHEADER	OUCBS header info
0	(0)	CHARACTER	8	OUCBSNAME	eyecatcher
8	(8)	UNSIGNED	1	OUCBSVER	Version id
9	(9)	CHARACTER	3	*	reserved
12	(C)	UNSIGNED	2	OUCBSLEN	length of OUCBS
14	(E)	CHARACTER	2	*	reserved
16	(10)	UNSIGNED	4	OUCBXIOCUQTTIMEINTVBASE	CUQT samps.
20	(14)	CHARACTER	1	OUCBFLGX2	More WLM Flags
	1... ....			*	Reserved
	.1.. ....			OUCBXSERTASKSMANAGED	Flag that indicates whether the server instances for this address space are managed.
	..1. ....			*	Reserved
	...1 ....			OUCBXVSDATACOLLECTED	Virtual Storage Data has been successfully collected
	.... 1...			OUCBXENDPERIOD	End of Period
	.... .111			*	Reserved
21	(15)	CHARACTER	3	*	Reserved
24	(18)	UNSIGNED	4	OUCBXIOSQTIME	IOS queue time from DASD. Note this time is converted from samples not directly measured. In 128 microsec units.@PSY0602
28	(1C)	UNSIGNED	4	OUCBXVSAVLBEL16MB	Percent of virtual storage available below 16MB line data is collected for queue servers with the managed tasks bit turned on only
32	(20)	UNSIGNED	4	OUCBXVSAVLAV16MB	Percent of virtual storage available above 16MB line data is collected for queue servers with the managed tasks bit turned on only
36	(24)	UNSIGNED	4	OUCBXLLOCKUTIL	Count which indicates how often the local lock was found util. data is collected for queue servers with the managed tasks bit turned on only
40	(28)	UNSIGNED	4	OUCBXINSTVSLOT	Count which contains the number of active server instances found when the data for the virtual storage plots was obtained
44	(2C)	UNSIGNED	4	OUCBXINSTLLPLOT	Accumulator which is used to collect and calculate the avg. number of active server inst. for plotting local lock util.
48	(30)	UNSIGNED	4	OUCBDISCLFTOVER	Remainder in Disc samples cal
52	(34)	UNSIGNED	4	OUCBDISCTIMEBASE	Disc Time Base
56	(38)	UNSIGNED	4	OUCBFDISTIMEBASE	FICON Disc Time Base
60	(3C)	UNSIGNED	4	OUCBDISCLFTOVERSM	Remainder in Disc samples cal
64	(40)	UNSIGNED	4	OUCBDISCTIMEBASESM	Disc Time Base for sampling
68	(44)	UNSIGNED	4	OUCBFDISTIMEBASESM	FICON Disc Tm Base for samp
72	(48)	UNSIGNED	4	OUCBFMNOBASE	FMNO base
76	(4C)	UNSIGNED	4	OUCBCONTIMEBASE	connect time base
80	(50)	UNSIGNED	4	OUCBFWAITTIMEBASE	FICON wait time base
84	(54)	UNSIGNED	4	OUCBFMNOBASESM	FMNO base for sampling

Table 993. Structure OUCBS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
88	(58)	UNSIGNED	4	OUCBCONTIMEBASESM	connect time base for sampling
92	(5C)	UNSIGNED	4	OUCBFWAITTIMEBASESM	FICON wait time base for sampling
96	(60)	UNSIGNED	4	OUCBXIOFMNOINTVBASE	FICON fmno interval base
100	(64)	UNSIGNED	4	OUCBXIOFWAITTIMEINTVBASE	FICON I/O wait time interval base
104	(68)	UNSIGNED	4	OUCBXIOFDISTIMEINTVBASE	FICON I/O disc. time interval base
108	(6C)	UNSIGNED	4	OUCBUSINGLETOVERS	remainder in using samples calculation
112	(70)	UNSIGNED	4	OUCBWAITLETOVERS	remainder in wait samples calculation
116	(74)	UNSIGNED	4	OUCBUSINGLETOVER	remainder in using samples calculation
120	(78)	UNSIGNED	4	OUCBWAITLETOVER	remainder in wait samples calculation
124	(7C)	UNSIGNED	4	OUCBXIOFCONTIMEINTVBASE	FICON I/O connect time interval base
128	(80)	CHARACTER	128	OUCBS_CACHELINE2	cache line of OUCB
128	(80)	UNSIGNED	2	OUCBSERVINSTACTIVE	Current number of server instances between IWMSTBGN(Begin) and IWMSTEND(End)
130	(82)	CHARACTER	2	*	reserved
132	(84)	UNSIGNED	4	OUCBFWAITTIMEBASESM	Base for I/O wait time, used by sampling
136	(88)	UNSIGNED	4	OUCBUSINGTIMEBASESM	Base for I/O using time, used by sampling
140	(8C)	ADDRESS	4	OUCBESMBPTR	Enclave Storage Management Block anchor or 7FFFF000.
144	(90)	ADDRESS	4	OUCBSPT	SPTE pointer. If the address space is a server, this period cannot be found via OucbScte because it is associated with a dynamic internal service class. 7FFFF000 if no period is associated with the address space.
148	(94)	ADDRESS	4	OUCBSHBP	Server history block ptr
152	(98)	ADDRESS	4	OUCBSXM1	sampling cross memory OUCB address 1
156	(9C)	ADDRESS	4	OUCBSXM2	sampling cross memory OUCB address 2
160	(A0)	ADDRESS	4	OUCBSXM	sampling cross memory exclude OUCB address
164	(A4)	CHARACTER	8	OUCBBUFFERPOOLTOKEN1	Buffer pool token whose delay samples are being kept in OucbBufferPool1
172	(AC)	CHARACTER	8	OUCBBUFFERPOOLTOKEN2	Buffer pool token whose delay samples are being kept in OucbBufferPool2
180	(B4)	CHARACTER	8	OUCBBUFFERPOOLTOKENEXCLUDE	Buffer pool token whose delay samples are being excluded from individual tracking
188	(BC)	BITSTRING	1	OUCBWL	WLM flags, name used in IPCS formatter
		1... ....		OUCBLSMP	Last sample complete
		.1.. ....		*	Reserved
		..1. ....		OUCBCPUR	Indicates the state sampler noted this space requesting CPU
		...1 1111		*	Reserved
189	(BD)	CHARACTER	1	OUCBSFLG	Flags used by sampling. Note that bits in this byte can be set by sampling without the SRM lock so any user of these flags must ensure proper serialization with sampling



Table 993. Structure OUCBS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		1... ....		OUCBXMSV	Sampling has saved this OUCB address as a target of xmem page faults. The OUCB must not be freed while this bit is on
		.111 1111		OUCBRSV8	Reserved. Note see comment on OUCBSFLG before using
190	(BE)	UNSIGNED	2	OUCBASID	Address space ID
192	(C0)	CHARACTER	1	OUCBVALB	OUCB Valid Bits
		1... ....		OUCB_VALID_PB_SEEN	Valid PB seen bit, old field name is OUCBVAPB
		.1.. ....		OUCB_VALID_REPORTONLY_PB_SEEN	Valid report-only PB seen bit
		..1. ....		OUCB_VALID_BPMGMT_PB_SEEN	Valid buffer pool mgmt PB seen bit @ME21083A
		...1 1111		*	Reserved @ME21083C
193	(C1)	CHARACTER	3	*	reserved
196	(C4)	CHARACTER	16	OUCBWCF0	WLM Classification output area
196	(C4)	BITSTRING	4	OUCBWTKN	WLM Classification token
200	(C8)	ADDRESS	4	OUCBNSPT	WLM Service period pointer
204	(CC)	BITSTRING	4	OUCBXSRTOKEN	IWMCLSFY SRMTOKEN value
208	(D0)	ADDRESS	4	*	Reserved- was OUCBNSCT
212	(D4)	ADDRESS	4	OUCBSCTE	Pointer to the SCTE of the external class the address space is associated with.
216	(D8)	ADDRESS	4	OUCBXDAT	Address of XDAT for the address space or zero
220	(DC)	UNSIGNED	4	OUCBX_SERVTIME_LEFTOVER	service time too small to get converted to CPU usings
224	(E0)	UNSIGNED	4	OUCBX_CPU_SERVTIME_BASE	Base value for captured CPU time use for calculating CPU samples
228	(E4)	UNSIGNED	4	OUCBTEMPAFFINITYEXIST	Indicates whether temporal affinities are set or not.
232	(E8)	UNSIGNED	4	OUCBSERVINSTACTIVERGNWORK	Server instances active, aka between Begin and End for a IWMSEL request, processing region work.
236	(EC)	UNSIGNED	4	OUCBX_CPUU_AT_JOBEND	CPU using samples found when the step ends
240	(F0)	UNSIGNED	2	OUCBX_CPSRP_SAMP	total samples for this OUCB
242	(F2)	UNSIGNED	2	OUCBX_CPSRP_CUR_FP_SAMP	full pre. samples for this OUCB
244	(F4)	UNSIGNED	2	OUCBX_CPSRP_PREV_FP_SAMP	prev full pre. sampl. for OUCB
246	(F6)	CHARACTER	2	*	Reserved
248	(F8)	UNSIGNED	4	OUCBXIEIOCUQTTIME	CUQT sampling
252	(FC)	UNSIGNED	4	OUCBXDEIOCUQTTIME	CUQT sampling
256	(100)	CHARACTER	128	OUCBS_CACHELINE3	Cache line reserved for EWLM samples
256	(100)	UNSIGNED	4	OUCBEWLMTIMESSAMPLED	Number of times this address space was sampled for EWLM
260	(104)	UNSIGNED	4	OUCBEWLMSERVTIMELO	Service time left from previous calculation of CPU using samples
264	(108)	CHARACTER	40	OUCBEWLMTOTSAMPLES	AS total samples array
264	(108)	UNSIGNED	4	OUCBEWLMTOTCPUUSING	Total CPU using samples
268	(10C)	UNSIGNED	4	OUCBEWLMTOTCPUDELAY	Total CPU delay samples

Table 993. Structure OUCBS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
272	(110)	UNSIGNED	4	OUCBEWLMTOTPAGEDELA	Total paging delay samples. This is the sum of private, common, VIO, hiperspace, shared and cross-memory paging from AUX storage
276	(114)	UNSIGNED	4	OUCBEWLMTOTIODELAY	Total DASD I/O Delay samples
280	(118)	UNSIGNED	4	OUCBEWLMTOTIDLE	Total idle samples
284	(11C)	UNSIGNED	4	OUCBEWLMTOTOTHER	Total other unknown samples
288	(120)	UNSIGNED	4	OUCBEWLMTOTIOUSING	Total DASD I/O Using samples
292	(124)	UNSIGNED	4	OUCBEWLMTOTSTORDELA	Total storage delay samples @WI349509
296	(128)	UNSIGNED	4	OUCBEWLMTOTQUEDELAY	Total queue delay samples @WI349509
300	(12C)	UNSIGNED	4	OUCBEWLMTOTUNKNOWN	Total unknown samples @WI349509
304	(130)	CHARACTER	70	OUCBEHIS	Enclave History
304	(130)	UNSIGNED	4	OUCBEHIS_QTIME	Queue Time and
308	(134)	UNSIGNED	4	OUCBEHIS_ETIME	Elapsed Time of all ended enclaves of this space in tha PA Int.
312	(138)	UNSIGNED	1	OUCBEHIS_LOW	index of entry with lowest long term average or of the first unused if not all in use
313	(139)	UNSIGNED	1	OUCBEHIS_HI	index of entry with highest long term average
314	(13A)	CHARACTER	6	OUCBEHIS_ENTRY(10)	One entry per service class if the space owned enclaves in that service class. Maximum the 10 SCs with the most enclaves
314	(13A)	SIGNED	2	OUCBEHIS_SC	Serv. Cl. number
316	(13C)	UNSIGNED	2	OUCBEHIS_A	# of enclaves this PA interval
318	(13E)	UNSIGNED	2	OUCBEHIS_LTA	long term average of enclaves
374	(176)	UNSIGNED	1	OUCBHEALTHIND	Health Indicator
375	(177)	CHARACTER	1	*	Reserved @WI349509
376	(178)	CHARACTER	8	OUCBEWLMTOTSAMPLES2	More AS total samples @WI349509
376	(178)	UNSIGNED	4	OUCBEWLMTOTSUPUSING	Total zIIP using samples @WI349509
380	(17C)	UNSIGNED	4	OUCBEWLMTOTSUPDELAY	Total zIIP delay samples @WI349509
384	(180)	CHARACTER	128	OUCBS_CACHELINE4	
384	(180)	CHARACTER	48	OUCBS_SPECPURPPROC	Special purpose processor (zAAP, zIIP) fields used to calculate processor usings from captured service times
384	(180)	UNSIGNED	4	OUCBX_PRO_SERVTIME_LEFTOVER(2)	Time on processor that is not yet converted to usings
392	(188)	UNSIGNED	4	OUCBX_PRO_SERVTIME_BASE(2)	Base value for captured service time
400	(190)	UNSIGNED	4	OUCBX_PROCP_SERVTIME_LEFTOVER(2)	Time_on_cp that is not yet converted processor_on_CP usings
408	(198)	UNSIGNED	4	OUCBX_PROCP_SERVTIME_BASE(2)	Base value for captured processor_on_cp time
416	(1A0)	UNSIGNED	4	OUCBX_PROU_AT_JOBEND(2)	Special purpose processor using samples found when jobstep ends
424	(1A8)	UNSIGNED	4	OUCBX_PROCPU_AT_JOBEND(2)	Processor_on_CP using samples found when jobstep ends

Table 993. Structure OUCBS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
432	(1B0)	CHARACTER	20	OUCBS_BLOCKEDWKLDS	Blocked workloads (trickle) support
432	(1B0)	UNSIGNED	4	OUCBX_AT_PDP_SERVTIME_LEFTOVER	Time at promotion DP not yet converted to usings
436	(1B4)	UNSIGNED	4	OUCBX_AT_PDP_SERVTIME_BASE	Base value for time at PDP
440	(1B8)	UNSIGNED	4	OUCBX_TIME_AT_PDP_USING	Time at promotion DP - samples
444	(1BC)	UNSIGNED	4	OUCBX_TIME_AT_PDP_USING_JOBEND	Time at promotion DP - samples
448	(1C0)	UNSIGNED	4	OUCBX_AT_PDP_DELTA_TIME	Time at promotion DP - delta
452	(1C4)	CHARACTER	20	OUCBS_HDLOCK	HD lock time at promotion DP
452	(1C4)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_SERVTIME_LEFTOVER	HD lock time at promotion DP not yet converted to usings
456	(1C8)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_SERVTIME_BASE	Base value for HD lock time at PDP
460	(1CC)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_USING	HD lock time at promotion DP - samples
464	(1D0)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_USING_JOBEND	HD lock time at promotion DP - jobend
468	(1D4)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_DELTA_TIME	HD lock time at promotion DP - delta
472	(1D8)	CHARACTER	24	OUCBS_VARTIME	Time promoted to a variable dispatch priority by supervisor
472	(1D8)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_SERVTIME_LEFTOVER	Time promoted to a variable dispatch priority by supervisor
476	(1DC)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_SERVTIME_BASE	Base value for variable time at PDP
480	(1E0)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_DELTA_TIME	Variable time at promotion DP - delta
484	(1E4)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_USING_JOBEND	Variable time at promotion DP - usings
488	(1E8)	UNSIGNED	4	OUCBX_VARWEIGHTED_AT_PDP_SERVTIME_BASE	Base value for variable time at PDP
492	(1EC)	UNSIGNED	4	OUCBX_VARWEIGHTED_AT_PDP_DELTA_TIME	Variable time at promotion DP - delta
496	(1F0)	CHARACTER	16	OUCBS_CUQT	CUQT sampling

Table 993. Structure OUCBS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
496	(1F0)	UNSIGNED	4	OUCBCUQTTIMEBASE	
500	(1F4)	UNSIGNED	4	OUCBCUQTLEFTOVER	
504	(1F8)	UNSIGNED	4	OUCBCUQTTIMEBASESM	
508	(1FC)	UNSIGNED	4	OUCBCUQTLEFTOVERSM	
512	(200)	CHARACTER	128	OUCBS_CACHELINE5	
512	(200)	CHARACTER	28	OUCBS_THROTTLE	Induced throttle time fields
512	(200)	UNSIGNED	4	OUCBXIOTHROTIMEINTVBASE	Interval base
516	(204)	UNSIGNED	4	OUCBXIEIOTHROTIME	Independent enclave
520	(208)	UNSIGNED	4	OUCBXDEIOTHROTIME	Dependent enclave
524	(20C)	UNSIGNED	4	OUCBTHROTIMEBASE	Time base
528	(210)	UNSIGNED	4	OUCBTHROLEFTOVER	Leftovers
532	(214)	UNSIGNED	4	OUCBTHROTIMEBASESM	Time base for sampling
536	(218)	UNSIGNED	4	OUCBTHROLEFTOVERSM	Leftovers for sampling
540	(21C)	CHARACTER	28	OUCBS_CONTENTION	Contention delta time fields
540	(21C)	UNSIGNED	4	OUCBXIOCNTDIMEINTVBASE	Interval base
544	(220)	UNSIGNED	4	OUCBXIEIOCNTDIME	Independent enclave
548	(224)	UNSIGNED	4	OUCBXDEIOCNTDIME	Dependent enclave
552	(228)	UNSIGNED	4	OUCBCNTDIMEBASE	Time base
556	(22C)	UNSIGNED	4	OUCBCNTDLEFTOVER	Leftovers
560	(230)	UNSIGNED	4	OUCBCNTDIMEBASESM	Time base for sampling
564	(234)	UNSIGNED	4	OUCBCNTDLEFTOVERSM	Leftovers for sampling
568	(238)	CHARACTER	72	*	Reserved
640	(280)	CHARACTER	0	OUCBSEND	

Table 994. Structure OUCBSAMPLES

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	128	OUCBSAMPLES	
0	(0)	CHARACTER	128	OUCBSAMPLES_CACHELINE1	cache line of OUCB,
0	(0)	CHARACTER	124	OUCBSOS	set of state samples. Note new delays must be added before oucbxmo
0	(0)	UNSIGNED	4	OUCBIS	idle state
4	(4)	UNSIGNED	4	OUCBOUS	other unknown state
8	(8)	UNSIGNED	4	OUCBCU	CPU using
12	(C)	UNSIGNED	4	OUCBDASDIOUSING	DASD I/O using samples
16	(10)	UNSIGNED	4	OUCBIFAU	IFA using count
20	(14)	UNSIGNED	4	OUCBSUPU	SUP using count
24	(18)	UNSIGNED	4	OUCBCD	CPU delay
28	(1C)	UNSIGNED	4	OUCBAPPD	primary private area paging delay from aux
32	(20)	UNSIGNED	4	OUCBAPCD	common area paging delay from aux
36	(24)	UNSIGNED	4	OUCBAVD	vio delay from aux
40	(28)	UNSIGNED	4	OUCBASHD	scroll hiperspace delay from aux
44	(2C)	UNSIGNED	4	OUCBACHD	cache hiperspace delay from aux
48	(30)	UNSIGNED	4	OUCBASWD	Aux swap delay
52	(34)	UNSIGNED	4	OUCBMD	mpl delay

Table 994. Structure OUCBSAMPLES (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
56	(38)	UNSIGNED	4	OUCBCCD	Address space delayed because it is in a resource group being capped
60	(3C)	UNSIGNED	4	OUCBASPD	Shared area paging delay from aux
64	(40)	UNSIGNED	4	OUCBDASDIODELAY	DASD I/O delay samples
68	(44)	UNSIGNED	4	OUCBWLQUEUEDELAY	Delay samples experienced while on WLM-managed work queue
72	(48)	UNSIGNED	4	OUCBENCLAVEPVTPAGING	Aux private paging delay samples experienced by enclave work units known to be associated with an address space
76	(4C)	UNSIGNED	4	OUCBENCLAVEVIOPAGING	Aux VIO paging delay samples experienced by enclave work units known to be associated with an address space
80	(50)	UNSIGNED	4	OUCBENCLAVEHSPAGING	Aux hiperspace paging delay samples experienced by enclave work units known to be associated with an address space
84	(54)	UNSIGNED	4	OUCBENCLAVEMLDELAY	MPL delay samples experienced by enclaves known to be associated with an address space
88	(58)	UNSIGNED	4	OUCBENCLAVESWAPDELAY	Swap-in delay samples experienced by enclaves known to be associated with an address space
92	(5C)	UNSIGNED	4	OUCBIFADL	IFA delay count
96	(60)	UNSIGNED	4	OUCBSUPDL	SUP delay count
Add new non-xmem-type delays before OucbPxmo					
100	(64)	UNSIGNED	4	OUCBPXM0	cross memory other address space paging delay from aux.
104	(68)	UNSIGNED	4	OUCBBUFFERPOOLOTHERDELAY	Buffer pool delay samples not due to the buffer pools that are being individually tracked
108	(6C)	UNSIGNED	4	OUCBPXM1	cross memory address space 1 paging delay from aux
112	(70)	UNSIGNED	4	OUCBPXM2	cross memory address space 2 paging delay from aux
116	(74)	UNSIGNED	4	OUCBBUFFERPOOL1DELAY	Buffer pool delay samples due to the buffer pool identified by OucbBufferPoolToken1
120	(78)	UNSIGNED	4	OUCBBUFFERPOOL2DELAY	Buffer pool delay samples due to the buffer pool identified by OucbBufferPoolToken2
124	(7C)	CHARACTER	4	OUCBSOS_NAME	eyecatcher 'SOS '

Table 995. Structure OUCBREPTSAMPLES

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	128	OUCBREPTSAMPLES	
0	(0)	CHARACTER	128	OUCBREPTSAMPLES_CACHELINE1	cache line of OUCB
0	(0)	CHARACTER	88	OUCBRSOS	Set of state samples used by reporting. Cleared every policy interval (must be consistent with IRACONST)
0	(0)	UNSIGNED	4	OUCBRQCT	Count of times the address space was found in quiesce state during policy interval

Table 995. Structure OUCBREPTSAMPLES (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
4	(4)	UNSIGNED	4	OUCBCAP	Number of times during the policy interval that the address space was found capped during sampling
8	(8)	UNSIGNED	4	OUCBASMP	Count of times sampling saw this address space
12	(C)	UNSIGNED	4	OUCBNONDASDIO	Non-DASD I/O delay+using samples
16	(10)	UNSIGNED	4	OUCBDASDIODISC	DASD I/O disconnect samples. These should actually be reported in OUCBSamples, but there's no more place
20	(14)	UNSIGNED	4	OUCBCAMU	not in use @WI104168C
24	(18)	UNSIGNED	4	OUCBCAMD	not in use @WI104168C
28	(1C)	UNSIGNED	4	OUCBAPU	Asynchronous AP using samples
32	(20)	UNSIGNED	4	OUCBAPD	Asynchronous AP delay samples
36	(24)	UNSIGNED	4	OUCBFQD	Feature queue delay samples
40	(28)	CHARACTER	16	*	Reserved for future crypto hardware
56	(38)	UNSIGNED	4	OUCBDASDIOPEND	DASD I/O pending samples
60	(3C)	UNSIGNED	4	OUCBDASDIOTHRO	DASD I/O induced throttle samples.
64	(40)	UNSIGNED	4	OUCBDASDIOCNTD	DASD I/O Contention Delta samples.
68	(44)	UNSIGNED	4	OUCBDASDIOCUQT	DASD I/O control unit queue samples.
72	(48)	UNSIGNED	4	OUCBRCSO	Contention delay sample count of work waiting for resources as reported to WLM on the IWMCNTN interface by the resource manager
76	(4C)	UNSIGNED	4	OUCBRCSU	Contention delay sample count of work holding resources as reported to WLM on the IWMCNTN interface by the resource manager
80	(50)	UNSIGNED	4	OUCBIFACU	using count of IFA work running on regular CPs
84	(54)	UNSIGNED	4	OUCBSUPCU	using count of SUP work running on regular CPs
88	(58)	UNSIGNED	4	OUCB_NORMAL_COMPLETIONS_PA	Normal Completions last PA Interval if reported by IWMRPT
92	(5C)	UNSIGNED	4	OUCB_ABNORMAL_COMPLETIONS_PA	Abnormal Completions last PA Interval if reported by IWMRPT
96	(60)	UNSIGNED	2	OUCB_ABNORMAL_COMP_RATE_LTA	Abnormal Completions Rate, long term average
98	(62)	UNSIGNED	1	OUCB_ABNORMCOUNT_SKIPCLOCK_1	Skipclock counter for high abnormal rate level 1
99	(63)	UNSIGNED	1	OUCB_ABNORMCOUNT_SKIPCLOCK_2	Skipclock counter for high abnormal rate level 2
100	(64)	CHARACTER	24	*	unused
124	(7C)	CHARACTER	4	OUCBRSOS_NAME	eyecatcher 'RSOS'

Table 996. Structure OUCBH\_ELEM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	368	OUCBH_ELEM	Element on queue

Table 996. Structure OUCBH\_ELEM (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	8	OUCBH_EYEC	Eyecatcher OUCBHLTH
8	(8)	ADDRESS	8	OUCBH_NEXT	Address of next element on queue
16	(10)	CHARACTER	352	OUCBH_BODY	Element body. See QHAR_Type in mapping macro IWMWQHAA
368	(170)	CHARACTER	0	OUCBH_END	

Table 997. Structure OUCBJAFB

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	256	OUCBJAFB	Job Accounting Sect. There is room between each jafb to allow for easy expansion of the Jafb. When the Jafb gets too big we'll get a compile error
0	(0)	CHARACTER	128	OUCBJAFB_ENCLAVE	
128	(80)	CHARACTER	128	OUCBJAFB_DEPENC	
256	(100)	CHARACTER	0	OUCBJAFB_END	

Table 998. Constants for IRAOUCBX

Len	Type	Value	Name	Description
8	CHARACTER	OUCBS	OUCBSNAME_VAL	
1	DECIMAL	1	OUCBSVER_VAL	OUCBS Version
4	DECIMAL	1664	OUCBXLEN_VAL	
2	DECIMAL	640	OUCBSLEN_VAL	
4	CHARACTER	SOS	OUCBSOS_NAME_VAL	
4	DECIMAL	128	OUCBSAMPLESLEN_VAL	
4	CHARACTER	RSOS	OUCBRSOS_NAME_VAL	
4	DECIMAL	128	OUCBREPTSAMPLESLEN_VAL	
4	DECIMAL	256	OUCBJAFBLEN_VAL	
Constants to make sure length of OucbX is equal to space allocated for it. Fixed 32 fields cannot contain negative values so the only way for both declares to work is if both expressions evaluate to 0 (the two are equal).				
4	DECIMAL	0	OUCBXLESSTHANEQUALOUCBX1	
4	DECIMAL	0	OUCBX1LESSTHANEQUALOUCBX	

Table 999. Cross Reference for IRAOUCBX

Name	Offset	Hex Tag
OUCB_ABNORMAL_COMP_RATE_LTA	60	
OUCB_ABNORMAL_COMPLETIONS_PA	5C	
OUCB_ABNORMCOUNT_SKIPCLOCK_1	62	
OUCB_ABNORMCOUNT_SKIPCLOCK_2	63	
OUCB_BPAH	188	
OUCB_CACHELINE10	380	
OUCB_CACHELINE11	400	
OUCB_CACHELINE12	480	
OUCB_CACHELINE13	500	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCB_CACHELINE14	580	
OUCB_CACHELINE15	600	
OUCB_CACHELINE3	0	
OUCB_CACHELINE4	80	
OUCB_CACHELINE5	100	
OUCB_CACHELINE6	180	
OUCB_CACHELINE7	200	
OUCB_CACHELINE8	280	
OUCB_CACHELINE9	300	
OUCB_NORMAL_COMPLETIONS_PA	58	
OUCB_RAW_SERVICE_ACCUM	184	
OUCB_RCOLL	380	
OUCB_SVDAT	3C0	
OUCB_VALID_BPMGMT_PB_SEEN	C0	20
OUCB_VALID_PB_SEEN	C0	80
OUCB_VALID_REPORTONLY_PB_SEEN	C0	40
OUCBACFL	131	80
OUCBACHD	2C	
OUCBAPCD	20	
OUCBAPD	20	
OUCBAPDS	E0	
OUCBAPPD	1C	
OUCBAPRQ	0	
OUCBAPU	1C	
OUCBASHD	28	
OUCBASID	BE	
OUCBASMP	8	
OUCBASPD	3C	
OUCBASST	1A0	
OUCBASWD	30	
OUCBAUXB	3C	
OUCBAVD	24	
OUCBAXPU	D0	
OUCBBKIA	58	
OUCBBKIE	5C	
OUCBBPIN	4C	
OUCBBPNE	50	
OUCBBUFFERPOOLOTHERDELAY	68	
OUCBBUFFERPOOLTOKENEXCLUDE	B4	



Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBBUFFERPOOLTOKEN1	A4	
OUCBBUFFERPOOLTOKEN2	AC	
OUCBBUFFERPOOL1DELAY	74	
OUCBBUFFERPOOL2DELAY	78	
OUCBCAMD	18	
OUCBCAMU	14	
OUCBCAP	4	
OUCBCAPB	248	
OUCBCCD	38	
OUCBCD	18	
OUCBCFCT	2C	
OUCBCNTDLEFTOVER	22C	
OUCBCNTDLEFTOVERSM	234	
OUCBCNTDTIMEBASE	228	
OUCBCNTDTIMEBASESM	230	
OUCBCONTEXTQUEUE	178	
OUCBCONTEXTQUEUEHEAD	178	
OUCBCONTEXTQUEUETAIL	17C	
OUCBCONTIMEBASE	4C	
OUCBCONTIMEBASESM	58	
OUCBCPUG	470	
OUCBCPUL	410	
OUCBCPUR	BC	20
OUCBCPUS	130	
OUCBCQHASBEENCORRUPTED	168	10
OUCBCRM	FC	
OUCBCRMB	12C	
OUCBCRMCPUTIME	430	
OUCBCRMCPUTIMECONSUMED	434	
OUCBCRMCPUTIMECONSUMEDBASE	430	
OUCBCRMCPUTIMECONSUMEDI	43C	
OUCBCRMDP	FD	
OUCBCRMFLAGS	FC	
OUCBCRMI	FC	20
OUCBCRMP	2C0	80
OUCBCRMPROA	FC	80
OUCBCRMPROE	FC	40
OUCBCRMPROPAGATEDCOUNT	FE	
OUCBCRMR	FC	10

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBCSUM	28	
OUCBCU	8	
OUCBCUQTLEFTOVER	1F4	
OUCBCUQTLEFTOVERSM	1FC	
OUCBCUQTTIMEBASE	1F0	
OUCBCUQTTIMEBASESM	1F8	
OUCBDASDIOCNTD	40	
OUCBDASDIOCUQT	44	
OUCBDASDIODELAY	40	
OUCBDASDIODISC	10	
OUCBDASDIOPEND	38	
OUCBDASDIOTHRO	3C	
OUCBDASDIOUSING	C	
OUCBDFRR	148	80
OUCBDISCLLEFTOVER	30	
OUCBDISCLLEFTOVERSM	3C	
OUCBDISCTIMEBASE	34	
OUCBDISCTIMEBASESM	40	
OUCBECPL	440	
OUCBECPT	15C	
OUCBECPU	158	
OUCBEFRR	148	40
OUCBEFS	D8	
OUCBEHIS	130	
OUCBEHIS_A	13C	
OUCBEHIS_ENTRY	13A	
OUCBEHIS_ETIME	134	
OUCBEHIS_HI	139	
OUCBEHIS_LOW	138	
OUCBEHIS_LTA	13E	
OUCBEHIS_QTIME	130	
OUCBEHIS_SC	13A	
OUCBEJST	8	
OUCBENCH	14C	
OUCBENCL	150	
OUCBENCLAVEHSPAGING	50	
OUCBENCLAVEEMPLDELAY	54	
OUCBENCLAVEPVTPAGING	48	
OUCBENCLAVESWAPDELAY	58	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBENCLAVEVIOPAGING	4C	
OUCBENQCPUTIMECONSUMED	174	
OUCBENQCPUTIMECONSUMEDBASE	170	
OUCBENQCPUTIMECONSUMEDI	1F0	
OUCBENQFLAGS	168	
OUCBENQHPENDING	65E	
OUCBENQHPENDLONG	65E	40
OUCBENQHPENDSTD	65E	80
OUCBENQMANAGEMENT	168	
OUCBENQP	168	80
OUCBESB1	C0	
OUCBESB2	C4	
OUCBESB3	C8	
OUCBESB4	CC	
OUCBESHP	B1	
OUCBESMBPTR	8C	
OUCBESTP	B2	
OUCBESVP	B0	
OUCBETCBFIRST	1B4	
OUCBETCBLAST	1B8	
OUCBETCBQ	1B4	
OUCBETIM	154	
OUCBETRC	164	
OUCBEUB1	138	
OUCBEUB2	13C	
OUCBEUB3	140	
OUCBEUB4	144	
OUCBEWLMARMNOTACTIVE	320	20
OUCBEWLMASRM	32C	
OUCBEWLMDATA	300	
OUCBEWLMENCCONNYES	320	10
OUCBEWLMFLAGS	320	
OUCBEWLMISARMREGED	320	80
OUCBEWLMISEWLMAGENT	320	40
OUCBEWLMPID	310	
OUCBEWLMRESERVED	334	
OUCBEWLMSERVTIMELO	104	
OUCBEWLMSRBTIME	308	
OUCBEWLMTASKRM	324	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBEWLMTCBTIME	300	
OUCBEWLMTIMESSAMPLED	100	
OUCBEWLMTOTCPUDELAY	10C	
OUCBEWLMTOTCPUUSING	108	
OUCBEWLMTOTIDLE	118	
OUCBEWLMTOTIODELAY	114	
OUCBEWLMTOTIOUSING	120	
OUCBEWLMTOTOTHER	11C	
OUCBEWLMTOTPAGEDELA	110	
OUCBEWLMTOTQUEDELAY	128	
OUCBEWLMTOTSAMPLES	108	
OUCBEWLMTOTSAMPLES2	178	
OUCBEWLMTOTSTORDELA	124	
OUCBEWLMTOTSUPDELAY	17C	
OUCBEWLMTOTSUPUSING	178	
OUCBEWLMTOTUNKNOWN	12C	
OUCBEWLMWASDISABLED	320	08
OUCBEXIB	124	
OUCBEXOB	128	
OUCBFDISTIMEBASE	38	
OUCBFDISTIMEBASESM	44	
OUCBFIX	20	
OUCBFLGX	131	
OUCBFLGX2	14	
OUCBFMNOBASE	48	
OUCBFMNOBASESM	54	
OUCBFQD	24	
OUCBFRAMESTOBESTOLENBYRSM	18C	
OUCBFWAITTIMEBASE	50	
OUCBFWAITTIMEBASESM	5C	
OUCBGENERICIRS	1F4	80
OUCBGFRR	148	20
OUCBGRLU	180	
OUCBH_BODY	10	
OUCBH_ELEM	0	
OUCBH_END	170	
OUCBH_EYEC	0	
OUCBH_NEXT	8	
OUCBHEALTHIND	176	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBHOLD	18	
OUCBHSUM	24	
OUCBIATK	100	
OUCBIFACU	50	
OUCBIFADL	5C	
OUCBIFAU	10	
OUCBIQFL	10A	
OUCBIRSFLAGS	1F4	
OUCBIRST	1F8	
OUCBIS	0	
OUCBJAFB	0	
OUCBJAFB_DEPENC	80	
OUCBJAFB_ENCLAVE	0	
OUCBJAFB_END	100	
OUCBLPSS	520	
OUCBLRPS	104	
OUCBLRST	528	
OUCBLSMP	BC	80
OUCBMD	34	
OUCBMDAC	148	08
OUCBMDEL	B4	
OUCBMSOL	448	
OUCBMTRM	66	
OUCBNONDASDIO	C	
OUCBNQC	16A	
OUCBNQC_LONGTIME	65C	
OUCBNQC_SHORTTIME	2E2	
OUCBNQC_STANDARD	2E0	
OUCBNQT	16C	
OUCBNQT_LONGTIME	658	
OUCBNQT_SHORTTIME	2E4	
OUCBNSPT	C8	
OUCBOUS	4	
OUCBOUTT	1C	
OUCBPGIB	44	
OUCBPGTB	38	
OUCBPINB	10C	
OUCBPINE	54	
OUCBPINT	110	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBPLAB	D4	
OUCBPQID	109	
OUCBPROA	168	40
OUCBPROE	168	20
OUCBPROPAGATEDENQHOLDCOUNT	132	
OUCBPS0	10	
OUCBPSRB	148	01
OUCBPSRV	149	80
OUCBPU2B	48	
OUCBPXM0	64	
OUCBPXM1	6C	
OUCBPXM2	70	
OUCBQID	108	
OUCBRCS0	48	
OUCBRCSU	4C	
OUCBREALS0WAPINRSM	1F4	40
OUCBREALS0WAPREDRIVE	1F4	04
OUCBREALS0WAPRSMFAILEDTIME	1FC	
OUCBREPTSAMPLES	0	
OUCBREPTSAMPLES_CACHELINE1	0	
OUCBREPTSAMPLESPTR	78	
OUCBRESB	40	
OUCBRQCT	0	
OUCBRSNS	148	02
OUCBRSOS	0	
OUCBRSOS_NAME	7C	
OUCBRSTB	4	
OUCBRSV8	BD	7F
OUCBS	0	
OUCBS_BLOCKEDDWKLD0	1B0	
OUCBS_CACHELINE1	0	
OUCBS_CACHELINE2	80	
OUCBS_CACHELINE3	100	
OUCBS_CACHELINE4	180	
OUCBS_CACHELINE5	200	
OUCBS_CONTENTION	21C	
OUCBS_CUQT	1F0	
OUCBS_HDLOCK	1C4	
OUCBS_SPECPURPPROC	180	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBS_THROTTLE	200	
OUCBS_VARTIME	1D8	
OUCBSAMPLES	0	
OUCBSAMPLES_CACHELINE1	0	
OUCBSAMPLESPTR	74	
OUCBSCLS	1B0	
OUCBSCPI	1C4	
OUCBSCTE	D4	
OUCBSDAC	DC	
OUCBSEEC	64	
OUCBSEND	280	
OUCBSERVINSTACTIVE	80	
OUCBSERVINSTACTIVERGNWORK	E8	
OUCBSERVINSTCAPACITY	94	
OUCBSFEC	62	
OUCBSFLG	BD	
OUCBSHBP	94	
OUCBSHEADER	0	
OUCBSLEN	C	
OUCBSMSK	10B	
OUCBSNAME	0	
OUCBSONA	B3	
OUCBSOS	0	
OUCBSOS_NAME	7C	
OUCBSPSS	190	
OUCBSPTE	90	
OUCBSPTR	70	
OUCBSQBP	6C	
OUCBSQFP	68	
OUCBSRBG	478	
OUCBSRBL	418	
OUCBSRCI	1B2	
OUCBSRRC	34	
OUCBSRST	1A8	
OUCBSSCI	1B0	
OUCBSSPS	148	04
OUCBSUPCU	54	
OUCBSUPDL	60	
OUCBSUPU	14	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBSVER	8	
OUCBSWCB	2E	
OUCBSWFC	60	
OUCBSWPC	10	
OUCBSWSA	B8	
OUCBSWSC	BC	
OUCBSXMX	A0	
OUCBSXM1	98	
OUCBSXM2	9C	
OUCBTAXB	114	
OUCBTEMPAFFINITYEXIST	E4	
OUCBTHROLEFTOVER	210	
OUCBTHROLEFTOVERSM	218	
OUCBTHROTIMEBASE	20C	
OUCBTHROTIMEBASESM	214	
OUCBTMC	F4	
OUCBTMCT	E8	
OUCBTMF	134	
OUCBTMPS	E4	
OUCBTMRD	F0	
OUCBTMSD	EC	
OUCBTRANSWAPINRSM	1F4	20
OUCBTRANSWAPREDRIVE	1F4	02
OUCBTRSL	450	
OUCBUSINGLEFTOVER	74	
OUCBUSINGLEFTOVERSM	6C	
OUCBUSINGTIMEBASE	A0	
OUCBUSINGTIMEBASESM	88	
OUCBVALB	C0	
OUCBVHDB	118	
OUCBVHPB	11C	
OUCBVHUB	120	
OUCBWAITLEFTOVER	78	
OUCBWAITLEFTOVERSM	70	
OUCBWAITTIMEBASE	9C	
OUCBWAITTIMEBASESM	84	
OUCBWCFO	C4	
OUCBWKTM	30	
OUCBWLMF	A4	



Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBWLMF	BC	
OUCBWMQUEUEDELAY	44	
OUCBWLM2	148	
OUCBWL2F	149	
OUCBWMSL	458	
OUCBWORKQTOKEN	98	
OUCBWSMT	148	10
OUCBWSS	14	
OUCBWTKN	C4	
OUCBX	0	
OUCBX_AT_PDP_DELTA_TIME	1C0	
OUCBX_AT_PDP_SERVTIME_BASE	1B4	
OUCBX_AT_PDP_SERVTIME_LEFTOVER	1B0	
OUCBX_BA_AS_IFA_TIME_BASE	348	
OUCBX_BA_AS_IOC_TIME_BASE	360	
OUCBX_BA_AS_SOC_TIME_BASE	370	
OUCBX_BA_AS_SUP_TIME_BASE	368	
OUCBX_BA_AS_TTIME_BASE	340	
OUCBX_BA_ASWASSPLIT	530	80
OUCBX_BA_BRKLATENCY	378	
OUCBX_BA_BRKLOC	580	
OUCBX_BA_BRKLOCELM	580	
OUCBX_BA_CI	530	
OUCBX_BA_CIFLAGS	530	
OUCBX_BA_FLAG_AREA	5A4	
OUCBX_BA_FLAGS	5A4	
OUCBX_BA_HIGHSTORAGECONSUMER	5A4	80
OUCBX_BA_LOC	592	
OUCBX_BA_LOCELM	592	
OUCBX_BA_MEMSCORE	5A8	
OUCBX_BASE_SERVTIME_ON_PRO	280	
OUCBX_BASE_SERVTIME_PRO_ON_CP	290	
OUCBX_CNTNRID_SUPPLIED	2F2	80
OUCBX_CNTNRQUAL_SUPPLIED	2F2	40
OUCBX_CONNTIME_BASE	264	
OUCBX_CPSRP_CUR_FP_SAMP	F2	
OUCBX_CPSRP_PREV_FP_SAMP	F4	
OUCBX_CPSRP_SAMP	F0	
OUCBX_CPU_SERVTIME_BASE	E0	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBX_CPUU_AT_JOBEND	EC	
OUCBX_DE	1D8	
OUCBX_GMI_F1	270	
OUCBX_HDLOCK_AT_PDP_DELTA_TIME	1D4	
OUCBX_HDLOCK_AT_PDP_SERVTIME_BASE	1C8	
OUCBX_HDLOCK_AT_PDP_SERVTIME_LEFTOVER	1C4	
OUCBX_HDLOCK_TIME_AT_PDP_BASE	4C8	
OUCBX_HDLOCK_TIME_AT_PDP_LEFTOVER	4D0	
OUCBX_HDLOCK_TIME_AT_PDP_USING	1CC	
OUCBX_HDLOCK_TIME_AT_PDP_USING_JOBEND	1D0	
OUCBX_HDLOCKPROMOTION_TIME_AT_PDP	4C0	
OUCBX_IFA_TIME	4A0	
OUCBX_IFACP_TIME	4B0	
OUCBX_JAVA_ON_CP_TIME	498	
OUCBX_JAVA_ON_ZIIP_TIME	490	
OUCBX_PA_PCS_TAR	270	20
OUCBX_PA_PPS_TAR	270	10
OUCBX_PCS_CHANGETIME	278	
OUCBX_PPS_CHANGETIME	274	
OUCBX_PRO_SERVTIME_BASE	188	
OUCBX_PRO_SERVTIME_LEFTOVER	180	
OUCBX_PROCP_SERVTIME_BASE	198	
OUCBX_PROCP_SERVTIME_LEFTOVER	190	
OUCBX_PROCPU_AT_JOBEND	1A8	
OUCBX_PROMOTION	4D4	
OUCBX_PROMOTIONADJF	4DC	
OUCBX_PROMOTIONBASE	4D4	
OUCBX_PROMOTIONTIMEACCUM	4D8	
OUCBX_PROU_AT_JOBEND	1A0	
OUCBX_QSCEST_TIME	27C	
OUCBX_RAW_SERVICE	660	
OUCBX_RAW_SERVICE_IDX	65F	
OUCBX_RGROUP_TRICKLE	1EB	40
OUCBX_RSTORCMP_TIME	19C	
OUCBX_SERVTIME_LEFTOVER	DC	
OUCBX_SHORTTIME	2E0	
OUCBX_SPECPURPOSEPROC	280	
OUCBX_SPECREPT	534	
OUCBX_SPECREPTRC	5B4	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBX_STCR_CHSK	270	80
OUCBX_STCR_PHSK	270	40
OUCBX_SUP_TIME	4A8	
OUCBX_SUPCP_TIME	4B8	
OUCBX_TIME_AT_PDP	2C2	
OUCBX_TIME_AT_PDP_BASE	2CA	
OUCBX_TIME_AT_PDP_LEFTOVER	2D4	
OUCBX_TIME_AT_PDP_USING	1B8	
OUCBX_TIME_AT_PDP_USING_JOBEND	1BC	
OUCBX_TIME_ON_PRO	380	
OUCBX_TIME_ON_PRO_BASE	3A0	
OUCBX_TIME_PRO_ON_CP	390	
OUCBX_TIME_PRO_ON_CP_BASE	3B0	
OUCBX_TIMEOFLASTSAMPLESGATHERING	4E0	
OUCBX_TRC	5F4	
OUCBX_TRC_Q_NEXT	5F8	
OUCBX_TRC_Q_PREV	5FC	
OUCBX_VARTIME_AT_PDP	500	
OUCBX_VARTIME_AT_PDP_BASE	508	
OUCBX_VARTIME_AT_PDP_DELTA_TIME	1E0	
OUCBX_VARTIME_AT_PDP_SERVTIME_BASE	1DC	
OUCBX_VARTIME_AT_PDP_SERVTIME_LEFTOVER	1D8	
OUCBX_VARTIME_AT_PDP_USING_JOBEND	1E4	
OUCBX_VARWEIGHTED_AT_PDP_DELTA_TIME	1EC	
OUCBX_VARWEIGHTED_AT_PDP_SERVTIME_BASE	1E8	
OUCBX_VARWEIGHTED_TIME_AT_PDP	510	
OUCBX_VARWEIGHTED_TIME_AT_PDP_BASE	518	
OUCBXARRIVALTIMESTCKWORD1	260	
OUCBXCANCEL	1EA	01
OUCBXCLSFYPRIORITY	200	
OUCBXCFLG	2F2	
OUCBXCOP	2F4	
OUCBXCRA	244	
OUCBXCRRB	240	
OUCBXDAT	D8	
OUCBXDECPUTIMEFORWM1	88	
OUCBXDECRMCPUTIMECONSUMED	438	
OUCBXDEENQCPUTIMECONSUMED	1EC	
OUCBXDEIOCNTDTIME	224	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBXDEIOCONNECTTIME	1D8	
OUCBXDEIOCUQTTIME	FC	
OUCBXDEIODISCONNECTTIME	1DC	
OUCBXDEIOTHROTIME	208	
OUCBXDEIOWAITTIME	1E0	
OUCBXDEPENCLCOUNT	14A	
OUCBXDEPENCLTIMEEXISTS	149	40
OUCBXDEPENCPROTIMEFORWM1	2B0	
OUCBXDEPENCSUPTIMEQUAL	358	
OUCBXDEPENCTIMEONPRO	3D0	
OUCBXDEPENCTIMEPROONCP	3F0	
OUCBXDESSCHCOUNT	1E4	
OUCBXDETOTALCPUTIME	1BC	
OUCBXENCSSCHCOUNT	A8	
OUCBXENC SUPTIMEQUAL	350	
OUCBXENCTIMEONPRO	3C0	
OUCBXENCTIMEPROONCP	3E0	
OUCBXEND	680	
OUCBXENDPERIOD	14	08
OUCBXEQUBATCHQDELAY	224	
OUCBXEXPRESS	2C0	
OUCBXFIX_B2G	AC	
OUCBXFIXEDINCVALUE	488	
OUCBXFLAGS	1EA	
OUCBXFLAGS1	1EA	
OUCBXFLAGS2	1EB	
OUCBXFXSALL	2F1	02
OUCBXFXSBELOW16M	2F1	04
OUCBXFXSBETWEEN16M2G	2F1	08
OUCBXFXSDREF	2F1	01
OUCBXFXSREASON	2F1	
OUCBXFXSRV4	2F1	F0
OUCBXHASREMOTESYSTEMDATA	1EA	04
OUCBXHH	4E8	
OUCBXHH_ADDR	4F0	
OUCBXHH_ELEM#	4EC	
OUCBXHH_FLAGS	4EE	
OUCBXHH_LOCK	4E4	
OUCBXHH_RESET	4EE	80

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBXHH_TIMEWHENRESET	4F8	
OUCBXHH_UPDATE#	4E8	
OUCBXIEIOCNTDTIME	220	
OUCBXIEIOCONNECTTIME	1C8	
OUCBXIEIOCUQTTIME	F8	
OUCBXIEIODISCONNECTTIME	1CC	
OUCBXIEIOTHROTIME	204	
OUCBXIEIOWAITTIME	1D0	
OUCBXIESSCHCOUNT	1D4	
OUCBXIGNORETRXNSSPECIFIED	131	02
OUCBXINELIGHONORPRIORITY	131	10
OUCBXINELIGIBLETIME	210	
OUCBXINSTLLPLOT	2C	
OUCBXINSTVSLOT	28	
OUCBXIOCNTDTIMEINTVBASE	21C	
OUCBXIOCONTIMEINTVBASE	230	
OUCBXIOCOUNTERINTVBASE	234	
OUCBXIOCUQTTIMEINTVBASE	10	
OUCBXIODISCTIMEINTVBASE	238	
OUCBXIOFCONTIMEINTVBASE	7C	
OUCBXIOFDISTIMEINTVBASE	68	
OUCBXIOFMNOINTVBASE	60	
OUCBXIOFWAITTIMEINTVBASE	64	
OUCBXIOSQTIME	18	
OUCBXIOSQTIMEINTVBASE	23C	
OUCBXIOTHROTIMEINTVBASE	200	
OUCBXIOWAITTIMEINTVBASE	22C	
OUCBXJAFBADDR	198	
OUCBXJCLCONVERSIONTIME	208	
OUCBXJOBREINCARNATED	1EA	10
OUCBXLATCHCOUNT	258	
OUCBXLLOCKUTIL	24	
OUCBXMEMPPOOLFLG	550	
OUCBXMEMPPOOLFLG_POOLASSOCIATED	550	80
OUCBXMFT	A4	40
OUCBXMSV	BD	80
OUCBXNOIARYBLSWCALL	1F4	08
OUCBXNONCANCELABLE	1EB	80
OUCBXNOPR	A4	20

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBXNQ	658	
OUCBXNSWDPREASON	42B	
OUCBXNSWDPREASONAUX	42B	40
OUCBXNSWDPREASONFIXED	42B	80
OUCBXOLDPREEMPTION	A4	01
OUCBXOPERATORFORCEDINITIATION	1EA	20
OUCBXOUCBSRCSAVE	1F5	
OUCBXPBCP	538	
OUCBXPBCP_RC	5B4	
OUCBXPBOFFLOAD	540	
OUCBXPBOFFLOAD_RC	5BC	
OUCBXPBOFFLOADONCP	548	
OUCBXPBOFFLOADONCP_RC	5C4	
OUCBXPERFORMVALUE	1E8	
OUCBXPERIODSTARTREMOTESERVICE	25C	
OUCBXPROTRXSERVICEUNITS	2A8	
OUCBXQUEUEUTIME	204	
OUCBXRAXSWAPREASON	1F7	
OUCBXREGISTRATIONCOUNT	F8	
OUCBXREMOTESERVICE	250	
OUCBXREMOTESYSTEMDATAINCOMPLETE	1EA	02
OUCBXREMOTESYSTEMDATAPTR	254	
OUCBXRESETAFTERINITIATION	1EA	40
OUCBXRESETBEFOREINITIATION	1EA	80
OUCBXRESTARTTRANATSWAPIN	A4	04
OUCBXRPBW	131	20
OUCBXRPT	5F4	
OUCBXRSTORFLFLAG	429	
OUCBXRSTORFLREDRIVE	429	80
OUCBXRSTORFLRSV3	42A	
OUCBXRSTORFLRSV4	42C	
OUCBXRSTORFLTIME	420	
OUCBXRSTORFLTYPE	428	
OUCBXRSTORFLTYPE1	428	80
OUCBXSCHEDENV	214	
OUCBXSERVINSTINITIAL	92	
OUCBXSERVINSTLIMIT	90	
OUCBXSERVTASKSMANAGED	14	40
OUCBXSMF30	440	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBXSMF30EXPPAGERESIDENCYTIME	80	
OUCBXSPECIALFULLPREEMPT	A4	80
OUCBXSPECIALFULLPREEMPTTIME	7C	
OUCBXSRTIMEONCP	408	
OUCBXSRTOKEN	CC	
OUCBXSTCK	600	
OUCBXSTCKINELIGIBLETIME	650	
OUCBXSTCKJCLCONVERSIONTIME	648	
OUCBXSTCKMDEL	628	
OUCBXSTCKQUEUEUETIME	638	
OUCBXSTCKSDAC	630	
OUCBXSTCKSYSORRESAFTIME	640	
OUCBXSTCKTMO	608	
OUCBXSTCKTMRD	620	
OUCBXSTCKTMS	610	
OUCBXSTCKTMSD	618	
OUCBXSTCKWKTM	600	
OUCBXSTEPSTARTTIME	2F8	
OUCBXSTGCRIT_SPECIFIED_EXPLICIT	131	04
OUCBXSTGPROTNOW	131	08
OUCBXSTMA	480	
OUCBXSUBSYSTEMCOLLECTIONNAME	268	
OUCBXSYSORRESAFTIME	20C	
OUCBXSYST	1EA	08
OUCBXTASKTIMEONCP	400	
OUCBXTOTALSERVICEBASE	228	
OUCBXTRXMGMTBOTHSPECIFIED	131	01
OUCBXVIRTINCVLUE	48C	
OUCBXVSAVLAV16MB	20	
OUCBXVSAVLBEL16MB	1C	
OUCBXVSDATACOLLECTED	14	10
OUCBXWASHIDP	A4	08
OUCBXWASPRIV	A4	02
OUCBXX03FLAGS	2F0	
OUCBX2GRST	558	
OUCBX203E403E	2E8	
OUCBX203RATE	2EC	
OUCBX203REQUIRED	2F0	40
OUCBX203TOTFRAMESSLOTS	2E8	

Table 999. Cross Reference for IRAOUCBX (continued)

Name	Offset	Hex Tag
OUCBX403REQUIRED	2F0	80
OUCBX403TOTFIXED	2EC	
OUCBX403TOTFRAMES	2E8	

## IRAQVS information

### IRAQVS programming interface information

IRAQVS is a programming interface.

### IRAQVS heading information

<b>Common name:</b>	Sysevent QVS parameter list
<b>Macro ID:</b>	IRAQVS
<b>DSECT name:</b>	QVS
<b>Owning component:</b>	System Resource Manager (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: Anywhere Key: Caller key Residency: Anywhere
<b>Size:</b>	See assembly listing
<b>Created by:</b>	Caller of SYSEVENT QVS
<b>Pointed to by:</b>	Register 1 on entry to SYSEVENT QVS
<b>Serialization:</b>	None
<b>Function:</b>	Maps data returned by SYSEVENT QVS (Query Virtual Server). The caller is required to set field QvsLen to the length of the entire parameter list before invoking the SYSEVENT. On return the caller can inspect fields QvsVer and QvsFlags to determine which fields have been filled in.

### IRAQVS mapping

Table 1000. Structure QVS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QVS	
0	(0)	CHARACTER	4	QVSIN	IRAQVS.185: Input fields
0	(0)	SIGNED	4	QVSLEN	IRAQVS.219: Length of area
4	(4)	CHARACTER	100	QVSOUT	IRAQVS.191: Output fields for version 1
4	(4)	BITSTRING	1	QVSVER	IRAQVS.22: Version
5	(5)	BITSTRING	1	QVSFLAGS	IRAQVS.188: Flags

Bit definitions:



Table 1000. Structure QVS (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		QVSCECVALID	"X'80'" IRAQVS.72: Fields prefixed by QvsCec contain valid information
		.1.. ....		QVSIMGVALID	"X'40'" IRAQVS.84: Fields prefixed by QvsImg contain valid information. This flag is off if MVS is not running in a logical partition.
		..1. ....		QVSVMVALID	"X'20'" IRAQVS.81: Fields prefixed by QvsVm contain valid information. This flag is off if MVS is not running in a virtual machine.
6	(6)	BITSTRING	1	QVSBOOSTINFO	IRAQVS.405: same as RMCTZ_BoostInfo
7	(7)	BITSTRING	1	QVSCECCAPACITYSTATUS	IRAQVS.307: indicating if machine is running at nominal or reduced capacity
8	(8)	CHARACTER	4	QVSCECMACHINETYPE	IRAQVS.34: CEC machine type number in EBCDIC
12	(C)	CHARACTER	16	QVSCECMODELID	IRAQVS.276: CEC model identification in EBCDIC
28	(1C)	CHARACTER	16	QVSCECSEQUENCECODE	IRAQVS.77: CEC sequence code in EBCDIC. The sequence code is the portion of the CPU serial number that remains when the plant-of-manufacture portion of the serial number is excluded.
44	(2C)	CHARACTER	16	QVSCECMANUFACTURERNAME	IRAQVS.321: CEC manufacturer name
60	(3C)	CHARACTER	4	QVSCECPLANTOFMANUFACTURE	IRAQVS.262: Code that identifies the plant of manufacture
64	(40)	SIGNED	4	QVSCECCAPACITY	IRAQVS.41: CEC CPU capacity in millions of service units per hour
68	(44)	CHARACTER	8	QVSIMGLOGICALPARTITIONNAME	IRAQVS.317: Logical partition name
76	(4C)	SIGNED	2	QVSIMGLOGICALPARTITIONID	IRAQVS.207: Logical partition identifier in binary
78	(4E)	SIGNED	2		IRAQVS.213: Reserved
80	(50)	SIGNED	4	QVSIMGCAPACITY	IRAQVS.202: Logical partition CPU capacity in millions of service units per hour
84	(54)	CHARACTER	8	QVSVMNAME	IRAQVS.30: Virtual machine name
92	(5C)	SIGNED	4	QVSVMCAPACITY	IRAQVS.141: Virtual machine CPU capacity in millions of service units per hour
96	(60)	CHARACTER	1	QVSEND1(0)	IRAQVS.21: End of version 1 and version 2
96	(60)	SIGNED	4	QVSCECCAPZCBP	IRAQVS.318: CEC zCBP capacity in millions of service units per hour
100	(64)	SIGNED	4	QVSIMGCAPZCBP	IRAQVS.382: Logical partition zCBP capacity in millions of service units per hour
104	(68)	CHARACTER	1	QVSEND3(0)	IRAQVS.400: End of version 3
IRAQVS.228: Version 1					
104	(68)	X'1'	0	QVSVER1	"1"
IRAQVS.370: Version 2 (includes QvsCecCapacityStatus)					
104	(68)	X'2'	0	QVSVER2	"2"
IRAQVS.390: Version 3 (includes zCBP fields)					

Table 1000. Structure QVS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
104	(68)	X'3'	0	QVSVER3	"3"
IRAQVS.268: Version 4 (includes boost info)					
104	(68)	X'4'	0	QVSVER4	"4"
IRAQVS.246: Service completed successfully					
104	(68)	X'0'	0	QVSRCOK	"0"
IRAQVS.234: Parameter list is too small to contain version 1 data					
104	(68)	X'4'	0	QVSRCTOOSMALL	"4"
IRAQVS.292: QvsCecCapacityStatus is undefined (not supported by hardware)					
104	(68)	X'0'	0	QVSCECCAPSTATUNDEF	"0"
IRAQVS.304: Machine is running at nominal capacity					
104	(68)	X'1'	0	QVSCECCAPSTATNOMINAL	"1"
IRAQVS.331: Machine is running with reduced capacity due to a manual control setting. (e.g. power saving mode, customer initiated)					
104	(68)	X'2'	0	QVSCECCAPSTATREDMANUAL	"2"
IRAQVS.340: Machine is running with reduced capacity due to a machine exception condition (e.g. cooling problem)					
104	(68)	X'3'	0	QVSCECCAPSTATREDMACHEX	"3"
IRAQVS.349: Machine is running with reduced capacity due to a non-exception machine condition (e.g. firmware update)					
104	(68)	X'4'	0	QVSCECCAPSTATREDMACHNONEX	"4"
IRAQVS.358: Machine is running with reduced capacity due to an exception condition external to the machine (e.g. ambient temperature exceeded specified maximum)					
104	(68)	X'5'	0	QVSCECCAPSTATREDEXTCOND	"5"
104	(68)	X'68'	0	QVS_LEN	"*-QVS"

Table 1001. Cross Reference for IRAQVS

Name	Offset	Hex Tag
QVS	0	
QVS_LEN	68	68
QVSB00STINFO	6	
QVSCECCAPACITY	40	
QVSCECCAPACITYSTATUS	7	
QVSCECCAPSTATNOMINAL	68	1
QVSCECCAPSTATREDEXTCOND	68	5

Table 1001. Cross Reference for IRAQVS (continued)

Name	Offset	Hex Tag
QVSCECCAPSTATREDMACHEX	68	3
QVSCECCAPSTATREDMACHNONEX	68	4
QVSCECCAPSTATREDMANUAL	68	2
QVSCECCAPSTATUNDEF	68	0
QVSCECCAPZCBP	60	
QVSCECMACHINETYPE	8	
QVSCECMANUFACTURERNAME	2C	
QVSCECMODELID	C	
QVSCECPLANTOFMANUFACTURE	3C	
QVSCECSEQUENCECODE	1C	
QVSCECVALID	5	80
QVSEND1	60	
QVSEND3	68	
QVSFLAGS	5	
QVSIMGCAPACITY	50	
QVSIMGCAPZCBP	64	
QVSIMGLOGICALPARTITIONID	4C	
QVSIMGLOGICALPARTITIONNAME	44	
QVSIMGVALID	5	40
QVSIN	0	
QVSLEN	0	
QVSOUT	4	
QVSR0K	68	0
QVSRCT00SMALL	68	4
QVSVER	4	
QVSVER1	68	1
QVSVER2	68	2
QVSVER3	68	3
QVSVER4	68	4
QVSVMCAPACITY	5C	
QVSVMNAME	54	
QVSVMVALID	5	20

## IRARASC information

### IRARASC programming interface information

IRARASC is a programming interface.

## IRARASC heading information

**Common name:** Request Address Space Classification Information

**Macro ID:** IRARASC

**DSECT name:** RASC

**Owning component:** SYSTEMS RESOURCE MANAGER (SC1CX)

**Eye-catcher ID:** RASC  
Offset: 0  
Length: 4

**Storage attributes:** Main Storage: Must be fixed or DREF  
Virtual Storage: n/a  
Auxiliary Storage: n/a  
Subpool: n/a  
Key: sysevent caller's key  
Residency: n/a

**Size:** See assembler listing  
RASC -- X'014C' bytes

**Created by:** issuer of the REQASCL sysevent

**Pointed to by:** Register 1 on sysevent invocation

**Serialization:** none

**Function:** The RASC is the parameter list which is used when invoking the REQASCL sysevent. This sysevent returns classification information pertaining to a particular address space. The caller must set the RASC\_Acro, Rasc\_Version, and Rasc\_Length fields. This macro defines constants for this purpose. The following minimum MVS or OS/390 release is required to support each version:  
Version 1 - MVS/SP 5.2.0  
Version 2 - OS/390 1.3.0  
Version 3 - OS/390 1.4.0  
Version 4 - OS/390 3.1.0  
The sysevent returns only the classification information that applies to the specified version. This may not be all of the available classification information if the specified version is less than the highest supported version.  
The sysevent issuer must set register 1 to the address of the RASC parameter list.

## IRARASC mapping

Table 1002. Structure RASC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	RASC	
0	(0)	CHARACTER	8	RASC_INPUTS	
0	(0)	CHARACTER	4	RASC_ACRO	Acronym
4	(4)	BITSTRING	1	RASC_VERSION	Version

Table 1002. Structure RASC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	CHARACTER	1		Reserved.
6	(6)	SIGNED	2	RASC_LENGTH	Total size of RASC
8	(8)	CHARACTER	180	RASC_OUTPUTS	
8	(8)	CHARACTER	8	RASCTRXN	Transaction program name
16	(10)	CHARACTER	8	RASCUSER	Userid
24	(18)	CHARACTER	8	RASCTRXC	Transaction class
32	(20)	CHARACTER	4	RASCSubT	Subsystem Type
36	(24)	CHARACTER	8	RASCSubN	Subsystem Name
44	(2C)	CHARACTER	144	RASC_ACCT_AREA	Account Information area
44	(2C)	BITSTRING	1	RASCACCL	Account Information length (length of RASCACCT)
45	(2D)	CHARACTER	143	RASCACCT	Account Information
188	(BC)	CHARACTER	16	RASC_END_VERSION1	
188	(BC)	CHARACTER	8	RASCPERF	PERFORM value in EBCDIC. Blanks if there is no PERFORM value for this address space.
196	(C4)	CHARACTER	4	RASC_VERSION3_DATA	The following field is returned only when the version is 3 or higher.
196	(C4)	SIGNED	4	RASCPRIO	Subsystem priority in binary format. Contains hexadecimal 80000000 if the subsystem did not provide a priority.
200	(C8)	CHARACTER	4	RASCRSV1	Reserved for future use
204	(CC)	CHARACTER	1	RASC_END_VERSION2(0)	
204	(CC)	CHARACTER	1	RASC_END_VERSION3(0)	
204	(CC)	CHARACTER	28	RASC_VERSION4_DATA	The following field is returned only when the version is 4 or higher.
204	(CC)	CHARACTER	16	RASCSENV	Scheduling environment value for this address space
220	(DC)	CHARACTER	8	RASCSSCL	Subsystem collection name for this address space
228	(E4)	SIGNED	4	RASCRTK	IWMCLSFY SRMTOKEN value for this address space
232	(E8)	CHARACTER	1	RASC_END_VERSION4(0)	
232	(E8)	CHARACTER	100	RASC_VERSION5_DATA	The following field is returned only when the version is 5 or higher.
232	(E8)	SIGNED	2	RASCCIDL	Container ID length
234	(EA)	SIGNED	2	RASCCQLL	Container Qualifier length
236	(EC)	CHARACTER	64	RASCCNID	Container ID
300	(12C)	CHARACTER	32	RASCCNQL	Container Qualifier
332	(14C)	CHARACTER	1	RASC_END_VERSION5(0)	
332	(14C)	X'C1E2C3'	0	RASC_ID_CONSTANT	"C'RASC'" RASC eye catcher
332	(14C)	X'1'	0	RASC_VERSION1	"1" RASC version 1.
332	(14C)	X'2'	0	RASC_VERSION2	"2" RASC version 2.
332	(14C)	X'3'	0	RASC_VERSION3	"3" RASC version 3.
332	(14C)	X'4'	0	RASC_VERSION4	"4" RASC version 4.
332	(14C)	X'5'	0	RASC_VERSION5	"5" RASC version 5.
332	(14C)	X'5'	0	RASC_CURRENTVERSION	"5" Current Version
332	(14C)	X'BC'	0	RASC_VERSION1_LEN	"188" Length of version 1 ASC.
332	(14C)	X'CC'	0	RASC_VERSION2_LEN	"204" Length of version 2 ASC.
332	(14C)	X'CC'	0	RASC_VERSION3_LEN	"204" Length of version 3 ASC.

Table 1002. Structure RASC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
332	(14C)	X'E8'	0	RASC_VERSION4_LEN	"232" Length of version 4 ASC.
332	(14C)	X'14C'	0	RASC_VERSION5_LEN	"332" Length of version 5 ASC.
332	(14C)	X'14C'	0	RASC_CURRENTVERSION_LEN	"332"
332	(14C)	X'14C'	0	RASC_LEN	"*-RASC"

Table 1003. Cross Reference for IRARASC

Name	Offset	Hex	Tag
RASC	0		
RASC_ACCT_AREA	2C		
RASC_ACRO	0		
RASC_CURRENTVERSION	14C		5
RASC_CURRENTVERSION_LEN	14C		14C
RASC_END_VERSION1	BC		
RASC_END_VERSION2	CC		
RASC_END_VERSION3	CC		
RASC_END_VERSION4	E8		
RASC_END_VERSION5	14C		
RASC_ID_CONSTANT	14C		C1E2C3
RASC_INPUTS	0		
RASC_LEN	14C		14C
RASC_LENGTH	6		
RASC_OUTPUTS	8		
RASC_VERSION	4		
RASC_VERSION1	14C		1
RASC_VERSION1_LEN	14C		BC
RASC_VERSION2	14C		2
RASC_VERSION2_LEN	14C		CC
RASC_VERSION3	14C		3
RASC_VERSION3_DATA	C4		
RASC_VERSION3_LEN	14C		CC
RASC_VERSION4	14C		4
RASC_VERSION4_DATA	CC		
RASC_VERSION4_LEN	14C		E8
RASC_VERSION5	14C		5
RASC_VERSION5_DATA	E8		
RASC_VERSION5_LEN	14C		14C
RASCACCL	2C		
RASCACCT	2D		
RASCCIDL	E8		

Table 1003. Cross Reference for IRARASC (continued)

Name	Offset	Hex Tag
RASCCNID	EC	
RASCCNQL	12C	
RASCCQLL	EA	
RASCPERF	BC	
RASCPRIO	C4	
RASCRSV1	C8	
RASCSENV	CC	
RASCSTRK	E4	
RASCSSCL	DC	
RASCSubN	24	
RASCSubT	20	
RASCTRXC	18	
RASCTRXN	8	
RASCUSER	10	

## IRARASD information

### IRARASD programming interface information

IRARASD is a programming interface.

### IRARASD heading information

<b>Common name:</b>	Request Address Space Data Parameter List
<b>Macro ID:</b>	IRARASD
<b>DSECT name:</b>	RASD
<b>Owning component:</b>	SYSTEMS RESOURCE MANAGER (SC1CX)
<b>Eye-catcher ID:</b>	RASD Offset: 0 Length: 4
<b>Storage attributes:</b>	Main Storage: n/a Virtual Storage: n/a Auxiliary Storage: n/a Subpool: For REQASD, fixed or DREF. For REQFASD, any. Key: sysevent caller's key Residency: n/a
<b>Size:</b>	See assembly listing RASD -- X'0110' bytes
<b>Created by:</b>	issuer of the REQASD sysevent
<b>Pointed to by:</b>	Register 1 on sysevent invocation
<b>Serialization:</b>	None

**Function:**

The RASD is the parameter list which is used when invoking the REQASD or REQFASD sysevent. These sysevents return workload management information pertaining to a particular address space. The sysevents require the RASDLEN field to be filled in with the length of the RASD parameter list area that is to be used by the sysevent. The constant RASDSIZE can be used to fill in the RASDLEN field. Also, the sysevent issuer must set register 1 to the address of the RASD parameter list. For REQFASD sysevent issuers, register 13 must contain the address of a workarea which is necessary for the unserialized REQFASD processing. The size of the workarea required for REQFASD processing can be found in the constant RQFASDWA.

**IRARASD mapping**

Table 1004. Structure RASD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RASD	Request Address Space Data Parameter List
0	(0)	CHARACTER	4	RASDACRO	Eyecatcher - RASD
4	(4)	CHARACTER	4	RASDIN	RASD input fields
4	(4)	SIGNED	2	RASDLEN	Length of RASD
6	(6)	SIGNED	2	RASDWALEN	Length of Workarea
8	(8)	CHARACTER	64	RASDOUT	RASD output fields
8	(8)	BITSTRING	1	RASDPER#	Current period
9	(9)	BITSTRING	1	RASDBITS	System mode indicators
Bit definitions:					
		1... ....		RASDMODE	"X'80'" OFF - System is operating in goal mode
		.1... ....		RASDZCBP	"X'40'" ON - Fields with both zCBP and IFA names contain data about zCBP processors
10	(A)	CHARACTER	2	RASDRSV2	Reserved
12	(C)	CHARACTER	40	RASDGINF	Goal mode information
12	(C)	CHARACTER	8	RASDSCL	Service class name
20	(14)	CHARACTER	8	RASDWKLD	Workload name
28	(1C)	CHARACTER	8	RASDRGRP	Resource group name. Field contains blanks if the address space does not belong to a resource group.
36	(24)	CHARACTER	8	RASDRCL	Report class name. Field contains blanks if the address space does not belong to a report class.
44	(2C)	BITSTRING	1	RASDSTAT	Address space status
Bit definitions:					
		1... ....		RASDSRV	"X'80'" Address space is a server (WLM goal is not being honored for this address space because it is a server)
		.1... ....		RASDQSC	"X'40'" Address space was quiesced by a RESET command or IWMRESET macro



Table 1004. Structure RASD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
	..1. ....			RASDRESET	"X'20'" Address space was reset to the service class by the RESET command or IWMRESET macro
	...1 ....			RASDTAF	"X'10'" Address space has temporal affinities
45	(2D)	CHARACTER	3	RASDRSV3	Reserved
48	(30)	CHARACTER	4	RASDSCTK	Service class token
52	(34)	CHARACTER	4	RASDCINF	Reserved
52	(34)	SIGNED	2	RASDPGN	Reserved
54	(36)	SIGNED	2	RASDDMN	Reserved
56	(38)	BITSTRING	8	RASDIECPUTIME	Cumulative CPU time for all completed independent enclaves owned by the address space. Same units as AscbEjst
64	(40)	BITSTRING	8	RASDDECPUTIME	Cumulative CPU time for all completed dependent and monenv enclaves owned by the address space. Same units as AscbEjst
72	(48)	CHARACTER	1	RASDEND1(0)	End for version 1
72	(48)	CHARACTER	8	RASDOUT2	RASD output fields version 2
72	(48)	CHARACTER	4	RASDSUBT	Subsystem type that owns the work
76	(4C)	CHARACTER	2	RASDMAXLEN	Length of highest version of RASD. When versions beyond 2 are added, a caller who has assembled at version 2 can use this field to dynamically obtain storage for the highest version of the RASD. Although the caller will not know what the extra fields are, the caller can include them in a raw dump or trace
78	(4E)	CHARACTER	2	RASDRSV4	Reserved
80	(50)	CHARACTER	1	RASDEND2(0)	End for version 2
80	(50)	CHARACTER	20	RASDOUT3	RASD output fields version3
80	(50)	SIGNED	4	RASDWSS	Number of primary working set pages
84	(54)	SIGNED	4	RASDTWSS	Target working set size
88	(58)	SIGNED	4	RASDPSO	Number of pages swapped at last swap out
92	(5C)	SIGNED	4	RASDFIX	Number of fixed frames
96	(60)	SIGNED	4	RASDTRR	Transaction residency time in 1024-microsecond units
100	(64)	CHARACTER	1	RASDEND3(0)	End for version 3
100	(64)	CHARACTER	12	RASDOUT4	RASD output fields version 4
100	(64)	BITSTRING	4	RASDFLAGS1	Flags
100	(64)	BITSTRING	1	RASDFLG1	First flag byte

## Bit definitions:

1... ....	RASDCPROTCPU	"X'80'" Service class assigned by classification or RESET SRVCLASS was designated CPU-critical in the active policy
.1... ....	RASDCPROTSTG	"X'40'" Address space is serving transactions which belong to a service class that was designated storage-critical in the active policy's classification rules

Table 1004. Structure RASD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		..1. ....		RASDASPROTSTG	"X'20'" Address space matched a classification rule in the active policy which was designated storage-critical
		...1 ....		RASDTRXNMGMTXEMPT	"X'10'" Address space matched a classification rule in the active policy which prevents managing the region based on the response time goals of its served transactions
		.... 1...		RASDCPUPROTECTED	"X'08'" CPU protection was assigned either to the address space (see RasdCProtCpu) or to transaction service classes being served by the space or implicitly (see RasdICpuProt), and SRM is honoring the protection
		.... .1..		RASDSTGPROTECTED	"X'04'" Storage protection was assigned either to the address space (see RasdASProtStg) or to transaction service classes being served by the space (see RasdCProtStg), and SRM is honoring the protection
		.... ..1.		RASDTRXNMGMTBOTH	"X'02'" Address space matched a classification rule which specified "Manage Region Using Goals Of BOTH". Which means it is managed towards the velocity goal of the region. But transaction completions are reported and used for management of the transaction service classes with response time goals. This option should only be used with CICS TORs. The associated AORs should remain at the default "Manage Region Using Goals Of TRANSACTION".
		.... ...1		RASDINCLSPECIALTY	"X'01'" Address space belongs to a resource group which has Include Specialty Processor Consumption specified
101	(65)	BITSTRING	1	RASDFLG2	Second flag byte
Bit definitions:					
		1... ....		RASDCIOPRIORGROUP	"X'80'" Service class assigned by classification or RESET SRVCLASS belongs to I/O priority group HIGH in the active policy
		.1.. ....		RASDIOPRIORITYGROUP	"X'40'" I/O priority group HIGH assigned either to the address space (see RasdCioPrioGroup) or to transaction service classes served by the space
		..1. ....		RASDCINELIGHONORPRIORITY	"X'20'" Service class assigned by classification or RESET SRVCLASS was defined with "HonorPriority=NO" in the active policy
		...1 ....		RASDINELIGHONORPRIORITY	"X'10'" When on, specialty engine work in this address space is ineligible for "Honor Priority Processing", i.e. it will not be offloaded to CPs for help processing.
		.... 1...		RASDTENANTRESOURCEGROUP	"X'08'" Address space is currently associated with a tenant resource group. The name is provided in RASDRGRP
		.... .1..		RASDHWCONTAINER	"X'04'" When on, work in this address space is enabled for zCBP

Table 1004. Structure RASD (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ..1.		RASDASBOOST	"X'02'" Address space matched a classification rule in the active policy which enables for recovery process boost
		.... ...1		RASDZCONTAINER	"X'01'" Address space belongs to a z/OS Container
102	(66)	BITSTRING	1	RASDFLG3	Third flag byte
Bit definitions:					
		1... ....		RASDICUPROT	"X'80'" CPU protection was implicitly assigned since first period of service class and importance is 1 (or 2 when boost is active) See also OPT parms CCimp and CCimpBoost for importance used
104	(68)	BITSTRING	4	RASDSRMTOKEN	IWMCLSFY SRMTOKEN output value
108	(6C)	CHARACTER	4		Reserved
112	(70)	CHARACTER	1	RASDEND4(0)	End for version 4
112	(70)	CHARACTER	32	RASDOUT5	RASD output fields version 5 (obsolete, always zero)
112	(70)	BITSTRING	8	RASDENCTIMEONZCBP	Cumulative zCBP time for all completed independent enclaves owned by the address space (STCK format)
112	(70)	BITSTRING	8	RASDENCTIMEONIFA	Cumulative IFA time for all completed independent enclaves owned by the address space (STCK format)
120	(78)	BITSTRING	8	RASDDEPENCTIMEONZCBP	Cumulative zCBP time for all completed dependent enclaves owned by the address space (STCK format)
120	(78)	BITSTRING	8	RASDDEPENCTIMEONIFA	Cumulative IFA time for all completed dependent enclaves owned by the address space (STCK format)
128	(80)	BITSTRING	8	RASDENCTIMEZCBPONCP	Cumulative zCBP_on_CP time for all completed independent enclaves owned by the address space (STCK format)
128	(80)	BITSTRING	8	RASDENCTIMEIFAONCP	Cumulative IFA_on_CP time for all completed independent enclaves owned by the address space (STCK format)
136	(88)	BITSTRING	8	RASDDEPENCTIMEZCBPONCP	Cumulative zCBP_On_CP time for all completed independent enclaves owned by the address space (STCK format)
136	(88)	BITSTRING	8	RASDDEPENCTIMEIFAONCP	Cumulative IFA_On_CP time for all completed independent enclaves owned by the address space (STCK format)
144	(90)	CHARACTER	1	RASDEND5(0)	End for version 5
144	(90)	CHARACTER	48	RASDOUT6	RASD output fields version 6
144	(90)	BITSTRING	8	RASDENCTIMEONSUP	Cumulative SUP time for all completed independent enclaves owned by the address space (STCK format)
152	(98)	BITSTRING	8	RASDDEPENCTIMEONSUP	Cumulative SUP time for all completed dependent enclaves owned by the address space (STCK format)
160	(A0)	BITSTRING	8	RASDENCTIMESUPONCP	Cumulative SUP_on_CP time for all completed independent enclaves owned by the address space (STCK format)
168	(A8)	BITSTRING	8	RASDDEPENCTIMESUPONCP	Cumulative SUP_On_CP time for all completed independent enclaves owned by the address space (STCK format)

Table 1004. Structure RASD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
176	(B0)	BITSTRING	8	RASDENC TIMESUPQUAL	Cumulative time of independent enclave owned by the address space that was qualified for SUP (STCK format)
184	(B8)	BITSTRING	8	RASDDPENCTIMESUPQUAL	Cumulative time of dependent enclave owned by the address space that was qualified for SUP (STCK format)
192	(C0)	CHARACTER	1	RASDEND6(0)	End for version 6
192	(C0)	CHARACTER	48	RASDOUT7	RASD output fields version 7
192	(C0)	SIGNED	4	RASDIMPORTANCE	Importance of address space: 0 = system work, 1 = middleware and servers, 2 = normal work, 3 = discretionary work
196	(C4)	CHARACTER	40	RASDUSGDLYSAMPLES	Cumulative address space using and delay samples
196	(C4)	SIGNED	4	RASDCPUUSINGSAMPLES	CP and zIIP using
200	(C8)	SIGNED	4	RASDIOUSINGSAMPLES	DASD I/O using
204	(CC)	SIGNED	4	RASDCPUDELAYSAMPLES	CP and zIIP delay
208	(D0)	SIGNED	4	RASDIODELAYSAMPLES	DASD I/O delay
212	(D4)	SIGNED	4	RASDSTORDELAYSAMPLES	Storage delay (sum of paging, swapping, cross- memory, buffer pool, and MPL)
216	(D8)	SIGNED	4	RASDQUEUEDELAYSAMPLES	Queue delay (work is waiting for a server)
220	(DC)	SIGNED	4	RASDIDLESAMPLES	Idle
224	(E0)	SIGNED	4	RASDUNKNOWNSAMPLES	Other unknown
228	(E4)	SIGNED	4	RASDIIPUSINGSAMPLES	zIIP using
232	(E8)	SIGNED	4	RASDIIPDELAYSAMPLES	zIIP delay
236	(EC)	CHARACTER	4		Reserved
240	(F0)	CHARACTER	1	RASDEND7(0)	End for version 7
240	(F0)	CHARACTER	32	RASDOUT8	RASD output fields version 8
240	(F0)	BITSTRING	8	RASDENCJAVAONZIIP	Accumulated zIIP time of Java work of completed independent enclaves owned by this address space (STCK format)
248	(F8)	BITSTRING	8	RASDDPENCVJAONZIIP	Accumulated zIIP time of Java work of completed dependent enclaves owned by this address space (STCK format)
256	(100)	BITSTRING	8	RASDENCJAVAONCP	Accumulated time of zIIP eligible Java work of completed independent enclaves owned by this address space which is executed on CPs (STCK format)
264	(108)	BITSTRING	8	RASDDPENCVJAONCP	Accumulated time of zIIP eligible Java work of completed dependent enclaves owned by this address space which is executed on CPs (STCK format)
272	(110)	CHARACTER	1	RASDEND8(0)	End for version 8
272	(110)	CHARACTER	1	RASDEND(0)	Insert new sections before this point
Constants					
272	(110)	X'110'	0	RASDSIZE	"272"
272	(110)	X'110'	0	RASDSIZE_VERSION8	"272"
272	(110)	X'200'	0	RQFASDWA	"512" Size of REQASD workarea
272	(110)	X'E8'	0	F81DSIZE	"232" Size of IRARMF81's dynamic area

Table 1004. Structure RASD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
272	(110)	X'D0'	0	ASDDSIZE	"208" Size of IRARMASD's dynamic area
272	(110)	X'D0'	0	ASDDSIZE_DYN	"208"
272	(110)	X'110'	0	RASD_LEN	"*-RASD"

Table 1005. Cross Reference for IRARASD

Name	Offset	Hex	Tag
ASDDSIZE	110		D0
ASDDSIZE_DYN	110		D0
F81DSIZE	110		E8
RASD	0		
RASD_LEN	110		110
RASDACRO	0		
RASDASBOOST	65		2
RASDASPROTSTG	64		20
RASDBITS	9		
RASDCINELIGHONORPRIORITY	65		20
RASDCINF	34		
RASDCIOPRIOGROUP	65		80
RASDCPROTCPU	64		80
RASDCPROTSTG	64		40
RASDCPUDELAYSAMPLES	CC		
RASDCPUPROTECTED	64		8
RASDCPUUSINGSAMPLES	C4		
RASDDECPUTIME	40		
RASDDEPENCPJAVAONCP	108		
RASDDEPENCPJAVAONZIIP	F8		
RASDDEPENCTIMEIFAONCP	88		
RASDDEPENCTIMEONIFA	78		
RASDDEPENCTIMEONSUP	98		
RASDDEPENCTIMEONZCBP	78		
RASDDEPENCTIMESUPONCP	A8		
RASDDEPENCTIMESUPQUAL	B8		
RASDDEPENCTIMEZCBPONCP	88		
RASDDMN	36		
RASDENCJAVAONCP	100		
RASDENCJAVAONZIIP	F0		
RASDENCTIMEIFAONCP	80		
RASDENCTIMEONIFA	70		
RASDENCTIMEONSUP	90		

Table 1005. Cross Reference for IRARASD (continued)

Name	Offset	Hex Tag
RASDENCTIMEONZCBP	70	
RASDENCTIMESUPONCP	A0	
RASDENCTIMESUPQUAL	B0	
RASDENCTIMEZCBPONCP	80	
RASDEND	110	
RASDEND1	48	
RASDEND2	50	
RASDEND3	64	
RASDEND4	70	
RASDEND5	90	
RASDEND6	C0	
RASDEND7	F0	
RASDEND8	110	
RASDFIX	5C	
RASDFLAGS1	64	
RASDFLG1	64	
RASDFLG2	65	
RASDFLG3	66	
RASDGINF	C	
RASDHWCONTAINER	65	4
RASDICPUPROT	66	80
RASDIDLESAMPLES	DC	
RASDIECPUTIME	38	
RASDIIPDELAYSAMPLES	E8	
RASDIIPUSINGSAMPLES	E4	
RASDIMPORTANCE	C0	
RASDIN	4	
RASDINCLSPECIALTY	64	1
RASDINELIGHONORPRIORITY	65	10
RASDIODELAYSAMPLES	D0	
RASDIOPRIORITYGROUP	65	40
RASDIIOUSINGSAMPLES	C8	
RASDLEN	4	
RASDMAXLEN	4C	
RASDMODE	9	80
RASDOUT	8	
RASDOUT2	48	
RASDOUT3	50	
RASDOUT4	64	

Table 1005. Cross Reference for IRARASD (continued)

Name	Offset	Hex Tag
RASDOUT5	70	
RASDOUT6	90	
RASDOUT7	C0	
RASDOUT8	F0	
RASDPER#	8	
RASDPGN	34	
RASDPS0	58	
RASDQSC	2C	40
RASDQUEUEDELAYSAMPLES	D8	
RASDRCL	24	
RASDRESET	2C	20
RASDRGRP	1C	
RASDRSV2	A	
RASDRSV3	2D	
RASDRSV4	4E	
RASDSCL	C	
RASDSCTK	30	
RASDSIZE	110	110
RASDSIZE_VERSION8	110	110
RASDSRMTOKEN	68	
RASDSRV	2C	80
RASDSTAT	2C	
RASDSTGPROTECTED	64	4
RASDSTORDELAYSAMPLES	D4	
RASDSUBT	48	
RASDTAF	2C	10
RASDTENANTRESOURCEGROUP	65	8
RASDTRR	60	
RASDTRXNMGMTBOTH	64	2
RASDTRXNMGMTEXEMPT	64	10
RASDTWSS	54	
RASDUNKNOWNSAMPLES	E0	
RASDUSGDLYSAMPLES	C4	
RASDWALEN	6	
RASDWKLD	14	
RASDWSS	50	
RASDZCBP	9	40
RASDZCONTAINER	65	1
RQFASDWA	110	200

# IRARENF1 information

## IRARENF1 programming interface information

IRARENF1 is a programming interface.

## IRARENF1 heading information

<b>Common name:</b>	ENF signal 42 qualifiers
<b>Macro ID:</b>	IRARENF1
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	SRM (SC1CX)
<b>Eye-catcher ID:</b>	N/A Offset: N/A Length: N/A
<b>Storage attributes:</b>	Subpool: Any Key: 0 Residency: Above 16M line
<b>Size:</b>	4 bytes
<b>Created by:</b>	Caller
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	Contains qualifiers for ENF signal 42

## IRARENF1 mapping

Table 1006. Structure SRMENF1

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SRMENF1	ENF signal 42 qualifiers
0	(0)	BITSTRING	1	SRME1	Byte 1
1	(1)	BITSTRING	1	SRME2	Byte 2
2	(2)	BITSTRING	1	SRME3	Byte 3
3	(3)	BITSTRING	1	SRME4	Byte 4
		.... ..		SRMENF11	"X'80000000'" MODIFY WLM, MODE=COMPAT command issued
		.... ..		SRMENF12	"X'40000000'" MODIFY WLM, MODE=COMPAT command completed
		.... ..		SRMENF13	"X'20000000'" MODIFY WLM, MODE=COMPAT command failed
		.... ..		SRMENF14	"X'10000000'" MODIFY WLM, MODE=GOAL command issued
		.... ..		SRMENF15	"X'08000000'" MODIFY WLM, MODE=GOAL command completed
		.... ..		SRMENF16	"X'04000000'" MODIFY WLM, MODE=GOAL command failed
3	(3)	BITSTRING	0	SRMENF21	"X'00800000'" SET IPS command issued
3	(3)	BITSTRING	0	SRMENF22	"X'00400000'" SET IPS command completed
3	(3)	BITSTRING	0	SRMENF23	"X'00200000'" SET IPS command failed



Table 1006. Structure SRMENF1 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
3	(3)	BITSTRING	0	SRMENF24	"X'00100000'" SET ICS command issued
3	(3)	BITSTRING	0	SRMENF25	"X'00080000'" SET ICS command completed
3	(3)	BITSTRING	0	SRMENF26	"X'00040000'" SET ICS command failed

Table 1007. Cross Reference for IRARENF1

Name	Offset	Hex	Tag
SRMENF1	0		
SRMENF11	3		0
SRMENF12	3		0
SRMENF13	3		0
SRMENF14	3		0
SRMENF15	3		0
SRMENF16	3		0
SRMENF21	3		800000
SRMENF22	3		400000
SRMENF23	3		200000
SRMENF24	3		100000
SRMENF25	3		80000
SRMENF26	3		40000
SRME1	0		
SRME2	1		
SRME3	2		
SRME4	3		

## IRARMCTZ information

### IRARMCTZ programming interface information

IRARMCTZ is a programming interface.

### IRARMCTZ heading information

<b>Common name:</b>	Resources Manager Control Table Extens. 3
<b>Macro ID:</b>	IRARMCTZ
<b>DSECT name:</b>	Rmctz
<b>Owning component:</b>	SYSTEMS RESOURCE MANAGER (SC1CX)
<b>Eye-catcher ID:</b>	IRARMCTZ Offset: 0 Length: 8

**Storage attributes:** Main Storage: ESQA  
Subpool: 245  
Key: 0  
Residency: Above 16M line

**Size:** 1260 bytes @LRMFCPU  
RMCTZ -- X'0530' bytes

**Created by:** IEAVNP10

**Pointed to by:** RMCTX3

**Serialization:** NONE

**Function:** This block contains programming interface data needed for customer use e.g. for RMF or vendor products

## IRARMCTZ mapping

Table 1008. Structure RMCTZ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RMCTZ	
0	(0)	CHARACTER	8	RMCTZ_NAME	Control block acronym
8	(8)	BITSTRING	1	RMCTZ_VERSION	Version
9	(9)	BITSTRING	1		Reserved
10	(A)	SIGNED	2	RMCTZ_LENGTH	Size of RMCTZ
12	(C)	BITSTRING	1	RMCTZ_LPAR_FLAGS	LPAR Management flags updated by SRM
Bit definitions:					
		1... ....		RMCTZ_LPARMGMT_ENABLED	"X'80'" When on, WLM LPAR Management processing is enabled
		.1.. ....		RMCTZ_LPAR_VARYCPU_ENABLED	"X'40'" When on, VARYCPU optio is turned on either by default or is explicitly set ON
13	(D)	BITSTRING	1	RMCTZ_FLAG1	Flag byte 1
Bit definitions:					
		1... ....		RMCTZ_ABN_OPT	"X'80'" When on, ABNORMALTERM option set to NO
		.1.. ....		RMCTZ_MANAGE_NONENCLAVE_WORK	"X'40'" When on, manage address space transaction work of enclave servers
		..1. ....		RMCTZ_OPT_AIMANAGEMENT	"X'20'" When on, AiManagement option set to YES and AI management in WLM is enabled
		...1 1111		RMCTZ_FLAG1_RSVD1	"X'1F'" Reserved
14	(E)	BITSTRING	1	RMCTZ_FLAG2	Flag byte 2
Bit definitions:					
		1... ....		RMCTZ_VCM_OPT	"X'80'" When on, VCM specified
		.1.. ....		RMCTZ_VCM	"X'40'" When on, running in vertical CP management mode
		..1. ....		RMCTZ_IOMS	"X'20'" When on, I/O management support turned on

Table 1008. Structure RMCTZ (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		RMCTZ_FULLPRESYSTEM	"X'10'" When on, FullPreSystem specified
		.... 1...		RMCTZ_ABSMSUCAPPING	"X'08'" When on, ABSMSUCAPPING
		.... .1..		RMCTZ_SUPPSAFINFOMSG	"X'04'" When on, SUPPSAFINFOMSG
		.... ..11		RMCTZ_FLAG2_RSVD1	"X'03'" Reserved
15	(F)	BITSTRING	1	RMCTZ_RSVD1	Reserved
16	(10)	SIGNED	2	RMCTZ_INITIMP_DP	Initiator dispatching priority
18	(12)	SIGNED	2	RMCTZ_INITIMP	INITIMP value specified in in IEAOPTxx member
20	(14)	CHARACTER	1	RMCTZ_LPAR_WTMGMT	LPAR weight mgmt section
20	(14)	BITSTRING	1	RMCTZ_LPAR_VARYCPUMIN	Minimum number of CPs which must stay online
21	(15)	BITSTRING	1	RMCTZ_WASROUTINGLEVEL	Status of WASROUTINGLEVEL IEAOPT parameter. If routing level is 0, WLM uses the newest routing algorithm which is supported by all systems in the sysplex. A level of 1 activates ROUNDROBIN algorithm. Level 2 uses only available CP capacity for routing recommendations and level 3 uses CP, AAP and IIP capacity for routing decisions.
22	(16)	CHARACTER	2		Reserved
24	(18)	BITSTRING	8	RMCTZ_CAPACITY_CHANGE_TIME	Time when the capacity was last changed
32	(20)	BITSTRING	1	RMCTZ_CAPACITY_ADJUSTMENT_INDICATION	When zero, indication is not reported. When in the range 1-99, some amount of reduction is indicated. When 100, the machine is operating at its normal capacity. Primary CPUs and all secondary-type CPUs are similarly affected
33	(21)	BITSTRING	1	RMCTZ_CAPACITY_CHANGE_REASON	Indicates the reason which is associated with the present value contained in RMCTZ_Capacity_Adjustment_ Indication
34	(22)	BITSTRING	1	RMCTZ_CAI_IPL	Capacity adjustment indication at IPL
35	(23)	BITSTRING	1	RMCTZ_CCR_IPL	Capacity change reason at IPL
36	(24)	SIGNED	4	RMCTZ_NOMINAL_CPMP	Nominal CPU adjustment factor (similar to RMCTCPMP but for nominal speed)
40	(28)	SIGNED	4	RMCTZ_RMF_CPU_SAMPLING_INDEX	Index of RMF CPU samling area
44	(2C)	SIGNED	4	RMCTZ_ADJC_CEC	CPU rate adjustment factor based on the number of physical CPUs available for the logical partitions to share, excluding speed boost
48	(30)	SIGNED	4	RMCTZ_CEC_CAPACITY	Total CEC capacity derivated from rmctz_adjc_CEC service units per 10 seconds. The value is based on the number of physical CPUs available for the logical partitions to share and does not include boost capacity
52	(34)	BITSTRING	1	RMCTZ_IOMS_OPT	STORAGESERVERMGT OPT parameter: 0=NO, 1=YES
53	(35)	CHARACTER	3		Reserved
56	(38)	BITSTRING	8	RMCTZ_LAST_PA_TOD	Time when last PA interval finished

Table 1008. Structure RMCTZ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
64	(40)	CHARACTER	32	RMCTZ_ZIIP_INFO	System resource manager (SRM) system-wide view of zIIP consumption since IPL or policy change
64	(40)	SIGNED	8	RMCTZ_SUS_ZIIP	Total unweighted zIIP-eligible service units spent on zIIP
72	(48)	SIGNED	8	RMCTZ_SUS_ZIIP_ON_CP	Total unweighted zIIP-eligible service units spent on CP
80	(50)	SIGNED	8	RMCTZ_SUS_JAVA_ON_ZIIP	Total unweighted zIIP-eligible Java service units spent on zIIP
88	(58)	SIGNED	8	RMCTZ_SUS_JAVA_ON_CP	Total unweighted zIIP-eligible Java service units spent on CP
96	(60)	CHARACTER	160	RMCTZ_UNUSED	Reserved
256	(100)	CHARACTER	24	RMCTZ_RMF_CPU_SAMPLING_AREA	Area contains 40 CPU samplingtable entries which where updated in IRASAPRO using IEAVEWDI. One entry contains CPU using and delay data per processor type (CP, zCBP or IFA, SUP). The value 40 = (10 seconds * (4 * 250 milliseconds)). One entry= 24 (6 * 4).
256	(100)	CHARACTER	24	RMCTZ_RMF_CPU_SAMPLING_ENTRY	Sampling entry containing CP, zCBP or IFA, SUP using and delay samples
256	(100)	SIGNED	4	RMCTZ_RMF_CP_USING_SAMPLES	
260	(104)	SIGNED	4	RMCTZ_RMF_ZCBP_USING_SAMPLES	
260	(104)	SIGNED	4	RMCTZ_RMF_IFA_USING_SAMPLES	
264	(108)	SIGNED	4	RMCTZ_RMF_SUP_USING_SAMPLES	
268	(10C)	SIGNED	4	RMCTZ_RMF_CP_DELAY_SAMPLES	
272	(110)	SIGNED	4	RMCTZ_RMF_ZCBP_DELAY_SAMPLES	
272	(110)	SIGNED	4	RMCTZ_RMF_IFA_DELAY_SAMPLES	
276	(114)	SIGNED	4	RMCTZ_RMF_SUP_DELAY_SAMPLES	
1216	(4C0)	CHARACTER	44	RMCTZ_SRM_QUEUES_COUNTER	Counters for all SRM queues
1216	(4C0)	SIGNED	4	RMCTZ_SRM_OUT_WAIT_QUEUE_COUNT	Counter of SRM wait-queue
1220	(4C4)	SIGNED	4	RMCTZ_SRM_LOGICAL_OUT_WAIT_QUEUE_COUNT	Counter of SRM logical-swap- wait queue
1224	(4C8)	SIGNED	4	RMCTZ_SRM_OUT_READY_QUEUE_COUNT	Counter of SRM out-queue
1228	(4CC)	SIGNED	4	RMCTZ_SRM_LOGICAL_OUT_READY_QUEUE_COUNT	Counter of SRM out-queue for logical swapped out AS's
1232	(4D0)	SIGNED	4	RMCTZ_SRM_IN_QUEUE_COUNT	Counter of SRM in-queue
1236	(4D4)	SIGNED	4	RMCTZ_SRM_INREADY_QUEUE_COUNT	Counter of SRM in-queue with processor using and delays in the address space
1240	(4D8)	CHARACTER	20	RMCTZ_AS_CLASS_COUNTERS	Address space counter per class
1240	(4D8)	SIGNED	4	RMCTZ_STC_COUNT	
1244	(4DC)	SIGNED	4	RMCTZ_OMVS_COUNT	
1248	(4E0)	SIGNED	4	RMCTZ_ASCH_COUNT	
1252	(4E4)	SIGNED	4	RMCTZ_BTCH_COUNT	

Table 1008. Structure RMCTZ (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1256	(4E8)	SIGNED	4	RMCTZ_TSO_COUNT	
1260	(4EC)	BITSTRING	1	RMCTZ_ROUTING_PI_FACTOR_PERCENTAGE	How much % of the PI should we use in the routing calculation
1261	(4ED)	BITSTRING	1	RMCTZ_BOOSTINFO	WLM view of boost information
Bit definitions:					
		1... ....		RMCTZ_ZIIPBOOST_ACTIVE	"X'80'"
		.1.. ....		RMCTZ_SPEEDBOOST_ACTIVE	"X'40'"
		..1. ....		RMCTZ_IPLBOOST_ACTIVATED	"X'20'" IPL boost has been activated. Once set, this flag never gets reset
		...1 ....		RMCTZ_SDBBOOST_ACTIVATED	"X'10'" Shutdown boost has been activated. Once set, this flag never gets reset
		.... 1...		RMCTZ_RPBBOOST_ACTIVATED	"X'08'" Recovery Process Boost has been activated. This bit will be turned off once the boost ends
		.... .111		RMCTZ_BOOSTCLASS	"X'07'" See RMCTZ_BoostClass_xxx equates. Valid only when one of the boosts is active
1262	(4EE)	CHARACTER	2		Reserved
1264	(4F0)	CHARACTER	12	RMCTZ_MT_AREA	SMT section
1264	(4F0)	BITSTRING	1	RMCTZ_MT_FLAGS	SMT flags
Bit definitions:					
		1... ....		RMCTZ_PROCVIEW	"X'80'" When on, core
		.1.. ....		RMCTZ_MT	"X'40'" When on, multiple threads per core
1265	(4F1)	CHARACTER	3		Reserved
1268	(4F4)	SIGNED	4	RMCTZ_MT_STAT	Current status for
1268	(4F4)	BITSTRING	1	RMCTZ_MT_CP	CPs
1269	(4F5)	BITSTRING	1	RMCTZ_MT_ZAAP	ZAAPs
1270	(4F6)	BITSTRING	1	RMCTZ_MT_ZIIP	zIIPs
1271	(4F7)	BITSTRING	1		Reserved
1272	(4F8)	SIGNED	4	RMCTZ_MT_OPT	OPT for
1272	(4F8)	BITSTRING	1	RMCTZ_MT_OPT_CP	CPs
1273	(4F9)	BITSTRING	1	RMCTZ_MT_OPT_ZAAP	ZAAPs
1274	(4FA)	BITSTRING	1	RMCTZ_MT_OPT_ZIIP	zIIPs
1275	(4FB)	BITSTRING	1		Reserved
1276	(4FC)	ADDRESS	4	RMCTZ_CPUALIVEPREVOPTCOREMODE	
1280	(500)	SIGNED	2	RMCTZ_WLMIRDSTRUC	If RMCTZ_WLMIRDSTRUC_SET is ON, represents the value of OPT parameter WLMIRDSTRUC: 0 means NONE, 1 means 4DIGITS, and 2 means 5DIGITS has been specified
1282	(502)	BITSTRING	1	RMCTZ_FLAGS	
Bit definitions:					
		1... ....		RMCTZ_WLMIRDSTRUC_SET	"X'80'" WLMIRDSTRUC flag
1283	(503)	CHARACTER	5	RMCTZ_RESERVED	Reserved

Table 1008. Structure RMCTZ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1288	(508)	SIGNED	4	RMCTZ_RTCAPLEADTIME	OPT parameter RTCapLeadTime: Specifies how long in advance an upcoming cap should influence routing recommendations (in minutes)
1292	(50C)	SIGNED	2	RMCTZ_TIME_TO_CAP	Estimated remaining time (in seconds) before the image will be capped
1294	(50E)	SIGNED	2	RMCTZ_TIME_TO_CAP_GROUP	Estimated remaining time (in seconds) before the group will be capped
1296	(510)	SIGNED	4	RMCTZ_DIAG204_FAILURE_COUNT	Number of diagnose 204 invocations that have been unsuccessful (since IPL)
1300	(514)	CHARACTER	28		reserved
1328	(530)	CHARACTER	1	RMCTZEND(0)	
Constants					
1328	(530)	X'D9C1D9'	0	RMCTZ_EYECATCHER_0T03	"C'IRAR'" This is the first 4-byte segment of an 8-byte constant.
1328	(530)	X'C3E3E9'	0	RMCTZ_EYECATCHER_4T07	"C'MCTZ'" This is the second 4-byte segment of an 8-byte constant.
1328	(530)	X'8'	0	RMCTZ_VERSION8	"8"
1328	(530)	X'8'	0	RMCTZ_CVERSION	"8"
1328	(530)	X'28'	0	RMCTZ_RMF_CPU_SAMPLING_TABLE_VALUE	"40" Value of RMF CPU sampling table entries. Based on sampling cycle 250 of milli- seconds, which is 4 samples in a second. So there are 40 entries in a 10 second RMF sampling interval
1328	(530)	X'0'	0	RMCTZ_CAI_NO_INDICATION	"0" Capacity adjustment indication is not reported
1328	(530)	X'64'	0	RMCTZ_CAI_NORMAL	"100" Machine is operating at its normal capacity
1328	(530)	X'0'	0	RMCTZ_CCR_NORMAL	"0" When the capacity adjustment indication is non- zero, the system is running at nominal capacity
1328	(530)	X'1'	0	RMCTZ_CCR_MANUAL	"1" The capacity change is due solely to the setting of a manual control (e.g. Power Savings Mode)
1328	(530)	X'2'	0	RMCTZ_CCR_MACHINE_EXCEPTION	"2" The capacity change is due to a machine exception condition (e.g. MRU hard failure)
1328	(530)	X'3'	0	RMCTZ_CCR_MACHINE_NON_EXCEPTION	"3" The capacity change is due to a non-exception machine condition (e.g. firmware update)
1328	(530)	X'4'	0	RMCTZ_CCR_EXTERNAL_EXCEPTION	"4" The capacity change is due to an exception condition external to the machine (e.g ambient temperature exceeded specified maximum value)
Boost Class equates. "AND" the byte with this mask and compare the result to the equate if you want to check the class					
	.... .111			RMCTZ_BOOSTCLASS_MASK	"X'07'"
	.... ...1			RMCTZ_BOOSTCLASS_IPL	"X'01'"

Table 1008. Structure RMCTZ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		RMCTZ_BOOSTCLASS_SHUTDOWN	"X'02' "
		.... ..11		RMCTZ_BOOSTCLASS_RP	"X'03' "
1328	(530)	X'530'	0	RMCTZ_LEN	"*-RMCTZ"

Table 1009. Cross Reference for IRARMCTZ

Name	Offset	Hex Tag
RMCTZ	0	
RMCTZ_ABN_OPT	D	80
RMCTZ_ABSMSUCAPPING	E	8
RMCTZ_ADJC_CEC	2C	
RMCTZ_AS_CLASS_COUNTERS	4D8	
RMCTZ_ASCH_COUNT	4E0	
RMCTZ_BOOSTCLASS	4ED	7
RMCTZ_BOOSTCLASS_IPL	530	1
RMCTZ_BOOSTCLASS_MASK	530	7
RMCTZ_BOOSTCLASS_RP	530	3
RMCTZ_BOOSTCLASS_SHUTDOWN	530	2
RMCTZ_BOOSTINFO	4ED	
RMCTZ_BTCH_COUNT	4E4	
RMCTZ_CAI_IPL	22	
RMCTZ_CAI_NO_INDICATION	530	0
RMCTZ_CAI_NORMAL	530	64
RMCTZ_CAPACITY_ADJUSTMENT_INDICATION	20	
RMCTZ_CAPACITY_CHANGE_REASON	21	
RMCTZ_CAPACITY_CHANGE_TIME	18	
RMCTZ_CCR_EXTERNAL_EXCEPTION	530	4
RMCTZ_CCR_IPL	23	
RMCTZ_CCR_MACHINE_EXCEPTION	530	2
RMCTZ_CCR_MACHINE_NON_EXCEPTION	530	3
RMCTZ_CCR_MANUAL	530	1
RMCTZ_CCR_NORMAL	530	0
RMCTZ_CEC_CAPACITY	30	
RMCTZ_CPUALIVEPREVOPTCOREMODE	4FC	
RMCTZ_CVERSION	530	8
RMCTZ_DIAG204_FAILURE_COUNT	510	
RMCTZ_EYECATCHER_0T03	530	D9C1D9
RMCTZ_EYECATCHER_4T07	530	C3E3E9
RMCTZ_FLAGS	502	
RMCTZ_FLAG1	D	

Table 1009. Cross Reference for IRARMCTZ (continued)

Name	Offset	Hex Tag
RMCTZ_FLAG1_RSVD1	D	1F
RMCTZ_FLAG2	E	
RMCTZ_FLAG2_RSVD1	E	3
RMCTZ_FULLPRESYSTEM	E	10
RMCTZ_INITIMP	12	
RMCTZ_INITIMP_DP	10	
RMCTZ_IOMS	E	20
RMCTZ_IOMS_OPT	34	
RMCTZ_IPLBOOST_ACTIVATED	4ED	20
RMCTZ_LAST_PA_TOD	38	
RMCTZ_LEN	530	530
RMCTZ_LENGTH	A	
RMCTZ_LPAR_FLAGS	C	
RMCTZ_LPAR_VARYCPU_ENABLED	C	40
RMCTZ_LPAR_VARYCPUMIN	14	
RMCTZ_LPAR_WTMGMT	14	
RMCTZ_LPARMGMT_ENABLED	C	80
RMCTZ_MANAGE_NONENCLAVE_WORK	D	40
RMCTZ_MT	4F0	40
RMCTZ_MT_AREA	4F0	
RMCTZ_MT_CP	4F4	
RMCTZ_MT_FLAGS	4F0	
RMCTZ_MT_OPT	4F8	
RMCTZ_MT_OPT_CP	4F8	
RMCTZ_MT_OPT_ZAAP	4F9	
RMCTZ_MT_OPT_ZIIP	4FA	
RMCTZ_MT_STAT	4F4	
RMCTZ_MT_ZAAP	4F5	
RMCTZ_MT_ZIIP	4F6	
RMCTZ_NAME	0	
RMCTZ_NOMINAL_CPMP	24	
RMCTZ_OMVS_COUNT	4DC	
RMCTZ_OPT_AIMANAGEMENT	D	20
RMCTZ_PROCVIEW	4F0	80
RMCTZ_RESERVED	503	
RMCTZ_RMF_CP_DELAY_SAMPLES	10C	
RMCTZ_RMF_CP_USING_SAMPLES	100	
RMCTZ_RMF_CPU_SAMPLING_AREA	100	
RMCTZ_RMF_CPU_SAMPLING_ENTRY	100	



Table 1009. Cross Reference for IRARMCTZ (continued)

Name	Offset	Hex Tag
RMCTZ_RMF_CPU_SAMPLING_INDEX	28	
RMCTZ_RMF_CPU_SAMPLING_TABLE_VALUE	530	28
RMCTZ_RMF_IFA_DELAY_SAMPLES	110	
RMCTZ_RMF_IFA_USING_SAMPLES	104	
RMCTZ_RMF_SUP_DELAY_SAMPLES	114	
RMCTZ_RMF_SUP_USING_SAMPLES	108	
RMCTZ_RMF_ZCBP_DELAY_SAMPLES	110	
RMCTZ_RMF_ZCBP_USING_SAMPLES	104	
RMCTZ_ROUTING_PI_FACTOR_PERCENTAGE	4EC	
RMCTZ_RPBOOST_ACTIVATED	4ED	8
RMCTZ_RSVD1	F	
RMCTZ_RTCAPLEADTIME	508	
RMCTZ_SDBOOST_ACTIVATED	4ED	10
RMCTZ_SPEEDBOOST_ACTIVE	4ED	40
RMCTZ_SRM_IN_QUEUE_COUNT	4D0	
RMCTZ_SRM_INREADY_QUEUE_COUNT	4D4	
RMCTZ_SRM_LOGICAL_OUT_READY_QUEUE_COUNT	4CC	
RMCTZ_SRM_LOGICAL_OUT_WAIT_QUEUE_COUNT	4C4	
RMCTZ_SRM_OUT_READY_QUEUE_COUNT	4C8	
RMCTZ_SRM_OUT_WAIT_QUEUE_COUNT	4C0	
RMCTZ_SRM_QUEUES_COUNTER	4C0	
RMCTZ_STC_COUNT	4D8	
RMCTZ_SUPPSAFINFOMSG	E	4
RMCTZ_SUS_JAVA_ON_CP	58	
RMCTZ_SUS_JAVA_ON_ZIIP	50	
RMCTZ_SUS_ZIIP	40	
RMCTZ_SUS_ZIIP_ON_CP	48	
RMCTZ_TIME_TO_CAP	50C	
RMCTZ_TIME_TO_CAP_GROUP	50E	
RMCTZ_TSO_COUNT	4E8	
RMCTZ_UNUSED	60	
RMCTZ_VCM	E	40
RMCTZ_VCM_OPT	E	80
RMCTZ_VERSION	8	
RMCTZ_VERSION8	530	8
RMCTZ_WASROUTINGLEVEL	15	
RMCTZ_WLMIRDSTRUC	500	
RMCTZ_WLMIRDSTRUC_SET	502	80
RMCTZ_ZIIP_INFO	40	

Table 1009. Cross Reference for IRARMCTZ (continued)

Name	Offset	Hex Tag
RMCTZ_ZIIPBOOST_ACTIVE	4ED	80
RMCTZEND	530	

## IRASRCD information

### IRASRCD programming interface information

IRASRCD is a programming interface.

### IRASRCD heading information

<b>Common name:</b>	System Resource Manager Swapout Reason Codes
<b>Macro ID:</b>	IRASRCD
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	System Resource Manager (SC1CX)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Subpool: N/A Key: N/A Residency: N/A
<b>Size:</b>	N/A
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	N/A
<b>Function:</b>	The IRASRCD macro defines the codes which describe the reasons for swapping users out of memory. The codes are placed in an OUCB field (OUCBSRC) prior to requesting that a user be swapped out.

### IRASRCD mapping

Table 1010. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
IRASRCD_1 ;					
0	(0)	X'1'	0	SRCDTOSC	"1" TERM OUTPUT WAIT SWAPOUT
0	(0)	X'2'	0	SRCDTISC	"2" TERMINAL INPUT WAIT SWAPOUT
0	(0)	X'3'	0	SRCDLWSC	"3" LONG WAIT CAUSED SWAP
0	(0)	X'4'	0	SRCDXSSC	"4" AUX STOR SHORTAGE CAUSED SWP
0	(0)	X'5'	0	SRCDRSSC	"5" REAL STOR SHORT CAUSED SWAP
0	(0)	X'6'	0	SRCDDWSC	"6" DETECTED WAIT CAUSED SWAP
0	(0)	X'7'	0	SRCDMPSC	"7" Memory Pool shortage
0	(0)	X'8'	0	SRCDNQSC	"8" CAP ENQ EXCHANGE SWAPOUT

Table 1010. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'9'	0	SRCDEXSC	"9" CAP EXCHANGE BASED UPON RECOMMENDATION VALUES
0	(0)	X'A'	0	SRCDUSSC	"10" CAP UNILATERAL SWAPOUT
0	(0)	X'B'	0	SRCDTSSC	"11" TRANSITION SWAP
0	(0)	X'C'	0	SRCDICSC	"12" SWAP TO IMPROVE CENTRAL STORAGE USAGE
0	(0)	X'D'	0	SRCDIPSC	"13" SWAP TO IMPROVE SYSTEM PAGING RATE
0	(0)	X'E'	0	SRCDMRSC	"14" SWAP TO MAKE ROOM FOR AN OUT TOO LONG ADDRESS SPACE
0	(0)	X'F'	0	SRCDAWSC	"15" APPC VERB SERVICE WAIT
0	(0)	X'10'	0	SRCDOISC	"16" WAITING TO PROCESS MORE OpenMVS WORK CAUSED THE SWAP (INPUT)
0	(0)	X'11'	0	SRCDOOSC	"17" WAITING TO OUTPUT MORE OpenMVS WORK CAUSED THE SWAP
0	(0)	X'12'	0	SRCIRSSC	"18" REALSWAP SYSEVENT CAUSED SWAP
0	(0)	X'12'	0	SRCDMAXN	"18" MAXIMUM VALID SWAP REASON CODE NUMBER

Table 1011. Cross Reference for IRASRCD

Name	Offset	Hex Tag
SRCDAWSC	0	F
SRCDDWSC	0	6
SRCDEXSC	0	9
SRCDICSC	0	C
SRCDIPSC	0	D
SRCDLWSC	0	3
SRCDMAXN	0	12
SRCDMPSC	0	7
SRCDMRSC	0	E
SRCDNQSC	0	8
SRCDOISC	0	10
SRCDOOSC	0	11
SRCDRSSC	0	5
SRCDTISC	0	2
SRCDTOSC	0	1
SRCDTSSC	0	B
SRCDUSSC	0	A
SRCDXSSC	0	4
SRCIRSSC	0	12

## IRASRMST information

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### IRASRMST programming interface information

IRASRMST is a programming interface.

### IRASRMST heading information

<b>Common name:</b>	Request SRM Status Sysevent Parameter List
<b>Macro ID:</b>	IRASRMST
<b>DSECT name:</b>	SRMSTAT
<b>Owning component:</b>	SYSTEM RESOURCE MANAGER (SC1CX)
<b>Eye-catcher ID:</b>	none
<b>Storage attributes:</b>	Main Storage: n/a Virtual Storage: n/a Subpool: Storage must be non-pageable Key: Sysevent caller's key Residency: n/a
<b>Size:</b>	120 BYTES SRMSTAT -- X'0078' bytes
<b>Created by:</b>	Invoker of the REQSRMST sysevent
<b>Pointed to by:</b>	Register 1 on sysevent invocation
<b>Serialization:</b>	none
<b>Function:</b>	<p>This macro defines the parameter list of data that is returned via the REQSRMST sysevent. The storage for this parameter list must be obtained by the issuer of the sysevent and the storage must be non-pageable. The SRMSTLEN field must be filled in with the length of this parameter list. The constant SRMSTSIZ can be used to set this length.</p> <p>The issuer must place the address of the parameter list in register 1 prior to issuing the REQSRMST sysevent. If the REQSRMST sysevent is issued with the branch entry option, the caller must also provide the address of a 72 byte standard savearea in register 13.</p> <p>The SRMSTMDE bit should be interrogated to determine whether the system is in goal mode or compatability mode. If SRMSTMDE is on then the system is running in compatibility mode, otherwise the system is in goal mode. Only information pertaining to the current system mode is returned by the sysevent (the data will be zeroes for the non-active mode).</p> <p>See individual field descriptions and notes for further details concerning the meaning of the actual data which is returned.</p>

## IRASRMST mapping

Table 1012. Structure SRMSTAT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	SRMSTAT	
0	(0)	CHARACTER	4	SRMSTIN	SRMST input fields
0	(0)	SIGNED	2	SRMSTLEN	Length of SRMSTAT
2	(2)	CHARACTER	2	SRMSTRV1	Reserved
4	(4)	CHARACTER	116	SRMSTOUT	SRMST output fields
4	(4)	BITSTRING	1	SRMSTFLG	flags
Bit definitions:					
		1... ....		SRMSTMDE	"X'80'" Mode of the system (OFF - the system is operating in goal mode, ON - the system is operating in compatibility mode)
5	(5)	BITSTRING	1	SRMSTFF1	Function availability flags for new functions introduced via APARs
Bit definitions:					
		1... ....		SRMSTERG	"X'80'" Enclave Registration
		.1.. ....		SRMSTTAF	"X'40'" Temporal affinity
		..1. ....		SRMSTCAP	"X'20'" Monitoring data for defined capacity
		...1 ....		SRMSTDAE	"X'10'" Dynamic Application Env. supported
		.... 1...		SRMSTELM	"X'08'" eWLM support installed
		.... .1..		SRMSTSSP	"X'04'" Stateful Session Placement is supported
		.... ..1.		SRMSTEDS	"X'02'" EWLM Delay Monitoring Services supported
		.... ...1		SRMSTSUP	"X'01'" SUP support present
6	(6)	BITSTRING	1	SRMSTFF2	Function availability flags for new functions introduced via APARs
Bit definitions:					
		1... ....		SRMSTEAD	"X'80'" Enclave adjustment
		.1.. ....		SRMSTWDP	"X'40'" work-dependent enclaves
		..1. ....		SRMSTSTS	"X'20'" SUBTASKS processing
		...1 ....		SRMWASTK	"X'10'" Future Support
		.... 1...		SRMSTSPR	"X'08'" Special Reporting
		.... .1..		SRMSTWBG	"X'04'" Solution Billing
		.... ..1.		SRMSTHWC	"X'02'" zCBP enabled
		.... ...1		SRMSTHPT	"X'01'" Supports IWM4EDEL PLISTVER=3
7	(7)	BITSTRING	1	SRMSTFF3	Function availability flags for new functions introduced via APARs
Bit definitions:					
		1... ....		SRMSTIMP	"X'80'" SpecificImp in SRS
		.1.. ....		SRMSTCNT	"X'40'" zOSCP support
		..11 1111		SRMSTRV2	"X'3F'" reserved

Table 1012. Structure SRMSTAT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
8	(8)	BITSTRING	8	SRMSTTOC	Current time of day indicating when the REQSRMST sysevent was issued. The timestamp is in store clock (STCK) format.
16	(10)	CHARACTER	8	SRMSTOPT	OPT parmlib member in use. NOTE: "IEAOPT--" indicates no OPT member specified.
24	(18)	CHARACTER	16	SRMSTCM	The fields within this structure are applicable to MVS Workload Management compatibility mode. NOTE: All of the fields contained in this structure will be zeroed when in goal mode.
24	(18)	CHARACTER	8	SRMSTIPS	IPS parmlib member in use. NOTE: "IEAIPS--" indicates the skeleton IPS is in affect.
32	(20)	CHARACTER	8	SRMSTICS	ICS parmlib member in use. NOTE: "IEAICS--" indicates no ICS member specified.
40	(28)	CHARACTER	64	SRMSTGM	The fields within this structure are applicable to MVS Workload Management goal mode. NOTE: All of the fields contained in this structure will be zeroed when in compatibility mode.
40	(28)	CHARACTER	8	SRMSTAPN	Active service policy name.
48	(30)	BITSTRING	8	SRMSTAPT	A timestamp of when the active service policy was originally activated. The timestamp is in store clock (STCK) format.
56	(38)	CHARACTER	8	SRMSTAPU	Userid that activated the service policy.
64	(40)	CHARACTER	8	SRMSTAPS	Name of the system on which the service policy activation was initiated.
72	(48)	CHARACTER	8	SRMSTADN	Installed service definition name at the time the policy was activated
80	(50)	BITSTRING	8	SRMSTADT	A timestamp of when the service definition was installed. The timestamp is in store clock (STCK) format.
88	(58)	CHARACTER	8	SRMSTADU	Userid that installed the service definition.
96	(60)	CHARACTER	8	SRMSTADS	Name of the system on which the service definition was installed.
104	(68)	BITSTRING	1	SRMSTTYP	Most current sysevent type supported for EnqHold and EnqRlse
105	(69)	BITSTRING	1	SRMSTELV	Most current IWMEQTME parameter list version PLISTVER supported by the system: 0 = PLISTVER 0 or 1, 2 = PLISTVER 2
106	(6A)	BITSTRING	1	SRMSTQCN	Most current IRAEVPL parameter list version supported by the system for SYSEVENT QRYCONT. 0 = SYSEVENT QRYCONT is not supported
107	(6B)	BITSTRING	1		For future use
108	(6C)	CHARACTER	12	SRMSTRV3	Reserved
120	(78)	CHARACTER	1	SRMSTEND(0)	End
120	(78)	X'78'	0	SRMSTSIZ	"120"
120	(78)	X'78'	0	SRMSTAT_LEN	"*-SRMSTAT"

Table 1013. Cross Reference for IRASRMST

Name	Offset	Hex Tag
SRMSTADN	48	
SRMSTADS	60	
SRMSTADT	50	
SRMSTADU	58	
SRMSTAPN	28	
SRMSTAPS	40	
SRMSTAPT	30	
SRMSTAPU	38	
SRMSTAT	0	
SRMSTAT_LEN	78	78
SRMSTCAP	5	20
SRMSTCM	18	
SRMSTCNT	7	40
SRMSTDAE	5	10
SRMSTEAD	6	80
SRMSTEDS	5	2
SRMSTELM	5	8
SRMSTELV	69	
SRMSTEND	78	
SRMSTERG	5	80
SRMSTFF1	5	
SRMSTFF2	6	
SRMSTFF3	7	
SRMSTFLG	4	
SRMSTGM	28	
SRMSTHPT	6	1
SRMSTHWC	6	2
SRMSTICS	20	
SRMSTIMP	7	80
SRMSTIN	0	
SRMSTIPS	18	
SRMSTLEN	0	
SRMSTMDE	4	80
SRMSTOPT	10	
SRMSTOUT	4	
SRMSTQCN	6A	
SRMSTRV1	2	
SRMSTRV2	7	3F
SRMSTRV3	6C	

Table 1013. Cross Reference for IRASRMST (continued)

Name	Offset	Hex Tag
SRMSTSIZ	78	78
SRMSTSPR	6	8
SRMSTSSP	5	4
SRMSTSTS	6	20
SRMSTSUP	5	1
SRMSTTAF	5	40
SRMSTTOC	8	
SRMSTTYP	68	
SRMSTWBG	6	4
SRMSTWDP	6	40
SRMWASTK	6	10

## IRB information

### IRB heading information

<b>Common name:</b>	IRB - Interrupt Response Block
<b>Macro ID:</b>	IHAIRB
<b>DSECT name:</b>	IRB
<b>Owning component:</b>	I/O Supervisor (SC1C3
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Main Storage: YES Virtual Storage: n/a Auxiliary Storage: n/a Subpool: Nucleus Key: 0 Residency: Above 16M
<b>Size:</b>	96 Bytes
<b>Created by:</b>	Modules that issue a TSCH. IOSVSLIH uses the IOWIRB in the IOWA IOSVIRBH uses the IOWRIRB in the IOWA
<b>Pointed to by:</b>	n/a
<b>Serialization:</b>	None.
<b>Function:</b>	The IRB is the operand of the Test Subchannel instruction and contains the subchannel status word.

### IRB mapping

Table 1014. Structure IRB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	96	IRB	



Table 1014. Structure IRB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	12	IRBSCSW	Subchannel Status Word
0	(0)	BITSTRING	4	IRBWORD1	First word of IRB
0	(0)	BITSTRING	1	IRBFLG0	Flags
		1111 ....		IRBKEY	o Key
		.... 1...		IRBS	o Suspend control
		.... .1..		IRBL	o ESW contains logout data
		.... ..11		IRBCC	o Deferred Condition Code
1	(1)	BITSTRING	1	IRBFLG1	Flags
		111. ....		IRBFMT	IRB format, when the processor supports the FCX facility and IRBX is on indicating that this is a transport mode IRB
		1... ....		IRBF	o Format of channel pgm.
		.1.. ....		IRBP	o Prefetch of CCWs allowed
		..1. ....		IRBI	o Initial status response requested
		...1 ....		IRBA	o Address limit checking required.
		...1 ....		IRBX	o IRB format control, for processors that support the FCX facility. When this bit is on, it indicates that this is a transport mode IRB. When this bit is off, it indicates that this is a command mode IRB.
		.... 1...		IRBSI	o Suppress suspend interruption
		.... 1...		IRBINTER	o For FCX, Interrogate operation has completed. Defined in the architecture as IRBU.
		.... .1..		IRBZ	o Zero condition code to initial selection
		.... ..1.		IRBE	o IRBEDATA contains extended data
		.... ...1		IRBN	o Path not operational
2	(2)	BITSTRING	2	IRBSCHC0	Subchannel Control
		1... ....		*	
		.111 ....		IRBFC	FUNCTION Control
		.1.. ....		IRBFSSCH	o Start Subchannel
		..1. ....		IRBFHSCH	o Halt Subchannel
		...1 ....		IRBFCSCH	o Clear Subchannel
2	(2)	BITSTRING	0	IRBAC	ACTIVITY Control
		.... 1...		IRBARSCH	o Resume pending
		.... .1..		IRBASSCH	o Start pending
		.... ..1.		IRBAHSCH	o Halt pending
		.... ...1		IRBACSCH	o Clear pending
3	(3)	1... ....		IRBASUBA	o Subchnanel active
		.1.. ....		IRBADEVA	o Device active
		..1. ....		IRBSSPND	o Subchannel suspended
		...1 1111		IRBSC	STATUS Control
		...1 ....		IRBSALRT	o Alert status
		.... 1...		IRBSINTR	o Intermediate status
		.... .1..		IRBSPRIM	o Primary status
		.... ..1.		IRBSSEC	o Secondary status
		.... ...1		IRBSPNDG	o Status pending

Table 1014. Structure IRB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	CHARACTER	8	IRBCSW	Channel Status Word (CSW)
4	(4)	ADDRESS	4	IRBCCWAD	CCW address
4	(4)	ADDRESS	4	IRBTCWAD	TCW address
8	(8)	BITSTRING	2	IRBSTAT	Device and Subchannel status
8	(8)	BITSTRING	1	IRBDSTAT	Device Status
		1... ..		IRBDSATN	o Attention
		.1.. ..		IRBDSSM	o Status modifier
		..1. ....		IRBDSCUE	o Control unit end
		...1 ....		IRBDSBSY	o Busy
		.... 1...		IRBDSCE	o Channel end
		.... .1..		IRBDSDE	o Device end
		.... ..1.		IRBDSUC	o Unit check
		.... ...1		IRBDSUEX	o Unit exception
9	(9)	BITSTRING	1	IRBSSTAT	Subchannel status
		1... ..		IRBSSPCI	o Program controlled interrupt
		.1.. ....		IRBSSIL	o Incorrect length
		..1. ....		IRBSSPGC	o Program check
		...1 ....		IRBSSPTC	o Protection check
		.... 1...		IRBSSCDC	o Channel data check
		.... .1..		IRBSSCCC	o Channel control check
		.... ..1.		IRBSSICC	o Interface control check
		.... ...1.		IRBSSADM	o Async data move check
		.... ...1		IRBSSCC	o Chaining check
		.... ...1		IRBSSCRF	o Channel subsystem retry failed
10	(A)	UNSIGNED	2	IRBCOUNT	Residual count
10	(A)	BITSTRING	1	IRBFCXSTATUS	FCX status byte
		1111 111.		*	o Reserved
		.... ...1		IRBTSBVALID	o The Transport Status Block has been stored. This bit is not set for I/O interrupts containing only interrogate status.
11	(B)	BITSTRING	1	IRBSESTAT	Subchannel extended status
		1... ..		IRBINTGFAILED	Interrogate failed
		.111 1111		IRBSESQ	Subchannel extended status qualifier - see macro IHASESQ
12	(C)	CHARACTER	20	IRBESWL	Extended status word long, mapped by IHAESWL.
12	(C)	CHARACTER	4	IRBESW	Extended Status Word - mapped by IHAESW
16	(10)	CHARACTER	16	IRBRSVD	Reserved
32	(20)	CHARACTER	32	IRBECW	Extended control word.
32	(20)	CHARACTER	32	IRBEDATA	Extended data area
64	(40)	CHARACTER	32	IRBEMW	Extended measurement word
64	(40)	UNSIGNED	4	IRBCONNT	Device connect time
68	(44)	UNSIGNED	4	IRBPENDT	Function pending time
72	(48)	UNSIGNED	4	IRBDISCT	Device disconnect time
76	(4C)	UNSIGNED	4	IRBCUQTA	Control Unit Queuing time
80	(50)	UNSIGNED	4	IRBDAO	Device active only time

Table 1014. Structure IRB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
84	(54)	UNSIGNED	4	IRBDEVBT	Device busy time
88	(58)	UNSIGNED	4	IRBICMR	Initial command response time
92	(5C)	UNSIGNED	4	*	Reserved

Table 1015. Constants for IRB

Len	Type	Value	Name	Description
IRBCC field declares - Deferred Condition Codes				
0	BIT	00	IRBCC0	Deferred condition code 0
0	BIT	01	IRBCC1	Deferred condition code 1
0	BIT	11	IRBCC3	Deferred condition code 3
Miscellaneous constants				
1	DECIMAL	64	IRBNOEMW	The length of IRB without the IRBEMW

Table 1016. Cross Reference for IRB

Name	Offset	Hex Tag
IRB	0	
IRBA	1	10
IRBAC	2	
IRBACSCH	2	01
IRBADEVA	3	40
IRBAHSCH	2	02
IRBARSCH	2	08
IRBASSCH	2	04
IRBASUBA	3	80
IRBCC	0	03
IRBCCWAD	4	
IRBCONNT	40	
IRBCOUNT	A	
IRBCSW	4	
IRBCUQTA	4C	
IRBDAO	50	
IRBDEVBT	54	
IRBDISCT	48	
IRBDSATN	8	80
IRBDSBSY	8	10
IRBDSCE	8	08
IRBDSCUE	8	20
IRBDSDE	8	04
IRBDSSM	8	40

Table 1016. Cross Reference for IRB (continued)

Name	Offset	Hex Tag
IRBDSTAT	8	
IRBDSUC	8	02
IRBDSUEX	8	01
IRBE	1	02
IRBECW	20	
IRBEDATA	20	
IRBEMW	40	
IRBESW	C	
IRBESWL	C	
IRBF	1	80
IRBFC	2	70
IRBFCSCH	2	10
IRBFCXSTATUS	A	
IRBFHSCH	2	20
IRBFLG0	0	
IRBFLG1	1	
IRBFMT	1	E0
IRBFSSCH	2	40
IRBI	1	20
IRBICMR	58	
IRBINTER	1	08
IRBINTGFAILED	B	80
IRBKEY	0	F0
IRBL	0	04
IRBN	1	01
IRBP	1	40
IRBPENDT	44	
IRBRSVD	10	
IRBS	0	08
IRBSALRT	3	10
IRBSC	3	1F
IRBSCHC0	2	
IRBSCSW	0	
IRBSEQ	B	7F
IRBSESTAT	B	
IRBSI	1	08
IRBSINTR	3	08
IRBSPNDG	3	01
IRBSPRIM	3	04

Table 1016. Cross Reference for IRB (continued)

Name	Offset	Hex Tag
IRBSSADM	9	02
IRBSSCC	9	01
IRBSSCCC	9	04
IRBSSCDC	9	08
IRBSSCRF	9	01
IRBSSEC	3	02
IRBSSICC	9	02
IRBSSIL	9	40
IRBSSPCI	9	80
IRBSSPGC	9	20
IRBSSPND	3	20
IRBSSPTC	9	10
IRBSSTAT	9	
IRBSTAT	8	
IRBTCWAD	4	
IRBTSBVALID	A	01
IRBWORD1	0	
IRBX	1	10
IRBZ	1	04

## IRDDCE information

### IRDDCE programming interface information

IRDDCE is a programming interface.

### IRDDCE heading information

<b>Common name:</b>	FICON Switch UCB Device Class Extension
<b>Macro ID:</b>	IRDDCE
<b>DSECT name:</b>	FsdDce
<b>Owning component:</b>	ESCON Director Device Support (00101)
<b>Eye-catcher ID:</b>	none
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: ESQA
<b>Size:</b>	FSDDCE -- X'001C' bytes
<b>Created by:</b>	IOSIUCB, IOSVCMUB
<b>Pointed to by:</b>	UCBCLEXT
<b>Serialization:</b>	None
<b>Function:</b>	Maps the Switch device class extension.

## IRDDCE mapping

Table 1017. Structure FSDDCE

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	FSDDCE	UCB FICON Switch Device Class Extension
0	(0)	BITSTRING	1	FSDDCEVER	DCE Version
1	(1)	CHARACTER	2		Reserved
3	(3)	BITSTRING	1	FSDDCELEN	DCE Length
4	(4)	ADDRESS	4	FSDDCEFSD	Address of FICON Switch Data, mapped by IRDDFSD macro, may be zero before FICON switch is brought online
8	(8)	ADDRESS	4	FSDDCEFACT	FRU code table address
12	(C)	CHARACTER	4	FSDDCEMISC1(0)	Miscellaneous information
12	(C)	BITSTRING	1	FSDDCENUMSTATCTRS	Number of statistical counters implemented
13	(D)	BITSTRING	1	FSDDCENUMPORTS	Number of external ports implemented/ card
14	(E)	BITSTRING	1	FSDDCEFIRSTPORT	First port num implem.
15	(F)	BITSTRING	1	FSDDCELASTPORT	Last port number implem.
16	(10)	CHARACTER	4	FSDDCEMISC2(0)	Miscellaneous information
16	(10)	BITSTRING	1	FSDDCEFLAGS(0)	
	1... ....			FSDDCEPFINDICATOR	"X'80'" Device recommendation for CCW prefetching
17	(11)	BITSTRING	1	FSDDCEFLAGS2(0)	
	1... ....			FSDDCEDFSDSTATSEXIST	"X'80'" Some were obtained
	.1.. ....			FSDDCEBADPORTABEND	"X'40'" ABEND already issued
	..1. ....			FSDDCESUPPORTDIAGCMD	"X'20'" Switch supports diagnostics command
	...1 ....			FSDDCERCF	"X'10'" Refresh configuration information
	.... 1...			FSDDCEDYNROUT	"X'08'" Switch is enabled for dynamic routing
18	(12)	BITSTRING	1	FSDDCEPRIORFIRSTPORT	To check for a change
19	(13)	BITSTRING	1	FSDDCEPRIORLASTPORT	To check for a change
20	(14)	ADDRESS	4	FSDDCEFSDAREAPTR	Address of MIR data mapped by IHAFSD
24	(18)	SIGNED	4	FSDDCEFSDAREALEN	Size of MIR data area
24	(18)	X'1C'	0	FSDDCE_LEN	"*-FSDDCE"

Table 1018. Cross Reference for IRDDCE

Name	Offset	Hex Tag
FSDDCE	0	
FSDDCE_LEN	18	1C
FSDDCEBADPORTABEND	11	40
FSDDCEDFSDSTATSEXIST	11	80
FSDDCEDYNROUT	11	8
FSDDCEFACT	8	
FSDDCEFIRSTPORT	E	
FSDDCEFLAGS	10	
FSDDCEFLAGS2	11	

Table 1018. Cross Reference for IRDDCE (continued)

Name	Offset	Hex Tag
FSDDCEFS	4	
FSDDCEFSAREALEN	18	
FSDDCEFSAREAPTR	14	
FSDDCELASTPORT	F	
FSDDCELEN	3	
FSDDCEMISC1	C	
FSDDCEMISC2	10	
FSDDCENUMPORTS	D	
FSDDCENUMSTATCTRS	C	
FSDDCEPFINDICATOR	10	80
FSDDCEPRIORFIRSTPORT	12	
FSDDCEPRIORLASTPORT	13	
FSDDCERCF	11	10
FSDDCESUPPORTDIAGCMD	11	20
FSDDCEVER	0	

## IRDDFSD information

### IRDDFSD programming interface information

IRDDFSD is a programming interface.

### IRDDFSD heading information

<b>Common name:</b>	FICON Switch Device Statistical Data Area
<b>Macro ID:</b>	IRDDFSD
<b>DSECT name:</b>	Dfsd, DfsdStat
<b>Owning component:</b>	ESCON Director Device Support (00101)
<b>Eye-catcher ID:</b>	'DFS' Offset: 0 Length: 3
<b>Storage attributes:</b>	Subpool: 245 Key: 0 Residency: ESQA
<b>Size:</b>	DFSD -- X'0448' bytes DFSDSEXT -- X'0020' bytes DFSDSTAT -- X'0040' bytes
<b>Created by:</b>	IOSIUCB, IOSVCMUB, IOSVFSD
<b>Pointed to by:</b>	FsdDceFsd in IRDDCE UCB Class Extension
<b>Serialization:</b>	None
<b>Function:</b>	Maps the FICON Switch Device Statistical Data Area

## IRDDFSD mapping

Table 1019. Structure DFSD

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DFSD	UCB FICON Switch Data Area
0	(0)	CHARACTER	60	DFSDHDR	Header of Control Block
0	(0)	CHARACTER	3	DFSDEYE	Eye Catcher - 'DFS'
3	(3)	BITSTRING	1	DFSDVER	Version Code
4	(4)	SIGNED	2	DFSDSIZE	Length of DfsdHdr + length of DfsdStvP array
6	(6)	SIGNED	2	DFSDPCNT	Ct of ports supported by switch (i.e., number of currently implemented ports)
8	(8)	CHARACTER	32	DFSDNED	Device Node Identifier
40	(28)	CHARACTER	8	DFSDTODU	Time of day at last update
48	(30)	SIGNED	2	DFSDERRU	Failure ct updating statistics
50	(32)	SIGNED	2	DFSDPSTS	Number of ports for which Statistics are being kept (i.e., number of currently installed ports)
52	(34)	CHARACTER	8	DFSDTALS	These tallies are updated in consecutive disabled code
52	(34)	SIGNED	4	DFSDNUBT	Stat Updates Begun Tally
56	(38)	SIGNED	4	DFSDNUET	Stat Updates Ended Tally
60	(3C)	ADDRESS	4	DFSDSTVP	Array of 256 pointers to ports' statistics (mapped by DFSDSTAT). DfsdStvP(n) may be 0 if port number n is not implemented
1096	(448)	X'448'	0	DFSD_LEN	"*-DFSD"

Table 1020. Structure DFSDSTAT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	DFSDSTAT	Statistics, based on DfsdStvP(n)
0	(0)	SIGNED	2	DFSDSPTN	Port number
2	(2)	CHARACTER	1	DFSDFLG1	Flags
Bit definitions:					
		1... ....		DFSDMPIR	"X'80'" Port information was returned at least once for this port
		.1.. ....		DFSDNOTI	"X'40'" Port info. showed the port not installed
		..1. ....		DFSDLF	"X'20'" Port info. showed link failure condition
		...1 ....		DFSDOFFL	"X'10'" Port info. showed the port offline
		.... 1...		DFSDSCR	"X'08'" Statistics were returned at least once for this port
		.... .111		DFSDRSV1	"X'07'" Reserved for future use
3	(3)	CHARACTER	1		Reserved for future use
4	(4)	SIGNED	8	DFSDSWTC	Ct of Words Transmitted
12	(C)	SIGNED	8	DFSDSWRC	Ct of Words Received
20	(14)	SIGNED	8	DFSDSFTC	Ct of Frames Transmitted
28	(1C)	SIGNED	8	DFSDSFRC	Ct of Frames Received
36	(24)	SIGNED	4	DFSDSF2C	Ct of Class 2 Frames received



Table 1020. Structure DFSDSTAT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
40	(28)	SIGNED	4	DFSDSF3C	Ct of Class 3 Frames received
44	(2C)	SIGNED	4	DFSDSFLC	Ct of Link Ctl Frames Recvd
48	(30)	SIGNED	4	DFSDSMFC	Ct of Multicast Frames Recvd
52	(34)	SIGNED	4	DFSDSFPT	Frame Pacing Time
56	(38)	SIGNED	4	DFSDSFEC	not used
60	(3C)	SIGNED	4	DFSDSLEC	Error Summary Count
60	(3C)	X'40'	0	DFSDSTAT_LEN	"*-DFSDSTAT"

Table 1021. Cross Reference for IRDDFSD

Name	Offset	Hex Tag
DFSD	0	
DFSD_LEN	448	448
DFSDERRU	30	
DFSDEYE	0	
DFSDFLG1	2	
DFSDHDR	0	
DFSDLF	2	20
DFSDMPIR	2	80
DFSDNED	8	
DFSDNOTI	2	40
DFSDNUBT	34	
DFSDNUET	38	
DFSDOFFL	2	10
DFSDPCNT	6	
DFSDPSTS	32	
DFSDRSV1	2	7
DFSDSCR	2	8
DFSDSFEC	38	
DFSDSFLC	2C	
DFSDSFPT	34	
DFSDSFRC	1C	
DFSDSFTC	14	
DFSDSF2C	24	
DFSDSF3C	28	
DFSDSIZE	4	
DFSDSLEC	3C	
DFSDSMFC	30	
DFSDSPTN	0	
DFSDSTAT	0	
DFSDSTAT_LEN	3C	40

Table 1021. Cross Reference for IRDDFSD (continued)

Name	Offset	Hex Tag
DFSDSTVP	3C	
DFSDSWRC	C	
DFSDSWTC	4	
DFSDTALS	34	
DFSDTODU	28	
DFSDVER	3	

## ISGE51CN information

### ISGE51CN programming interface information

ISGE51CN is a programming interface.

### ISGE51CN heading information

**Common name:** Global and Local Contention Data (ENF Event Code 51)

**Macro ID:** ISGE51CN

**DSECT name:** ENF51C - Global and local contention data

**Owning component:** Global Resource Serialization (SCSDS)

**Eye-catcher ID:** ENF51C  
Offset: 0  
Length: 6 bytes

**Storage attributes:** Main Storage: No  
Virtual Storage: Yes  
Auxiliary Storage: Yes  
Subpool: 241  
Key: 0  
Data Space: No  
Residency: ANY

**Size:** Variable  
ENF51C -- X'0030' bytes  
+ length of contention data

**Created by:** GRS or ENF

**Pointed to by:** First word of the address list pointed to by register 1 on entry to an ENF listen exit

**Serialization:** None

**Function:** Maps global and local contention data provided by ENF event code 51

## ISGE51CN mapping

Table 1022. Structure ENF51C

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ENF51C	Contention data
0	(0)	CHARACTER	16	ENF51C_HEADER	Header information
0	(0)	CHARACTER	6	ENF51CID	Control block identifier 'ENF51C'
6	(6)	SIGNED	2	ENF51CVERS	Version number. Current version is ENF51CCVER.
8	(8)	SIGNED	4	ENF51CLEN	Length of ENF51C control block, including the appended contention data beginning at ENF51C_RIB
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	32	ENF51C_CONTENTION_DATA	Contention data
16	(10)	BITSTRING	1	ENF51C_FLAGS	Event description
Bit definitions:					
		1... ....		ENF51C_CONTENTION_EXISTS	"X'80'" Contention exists for this resource
		.1.. ....		ENF51C_SYSTEM_FAILURE	"X'40'" The system named in ENF51C_FAILED_SYSTEM has failed and has no further interest in any resource
		..1. ....		ENF51C_SYSTEM_ERROR	"X'20'" Contention notifications may have been lost. This may be due to system errors or migration of the CNS. ENF51C_FAILED_SYSTEM will contain the name of the system in error or in the case of CNS migration, the old CNS.
		...1 ....		ENF51C_DATA_INCOMPLETE	"X'10'" The amount of data exceeded the maximum amount that can be transmitted with a cross-system-capable ENF signal
		.... 1...		ENF51C_SYSTEM_ERROR_CLEARED	"X'08'" Global resource contention data is once again valid.
17	(11)	CHARACTER	1		Reserved
18	(12)	SIGNED	2	ENF51C_EVENTS_COMBINED	Count of events that were combined into this notification. This field is valid when ENF51CVERS is at least ENF51CVER3
20	(14)	CHARACTER	8	ENF51C_TIMESTAMP	Time for which contention data is valid
28	(1C)	SIGNED	2	ENF51C_RIB_OFFSET	Offset from the beginning of the parameter list to the beginning of the RIB
30	(1E)	SIGNED	2	ENF51C_RIB_SIZE	Length of the fixed portion of the RIB (analogous to the first halfword returned by GQSCAN in register 0)
32	(20)	SIGNED	2	ENF51C_RIBE_SIZE	Length of each RIBE (analogous to the second halfword returned by GQSCAN in register 0)
34	(22)	CHARACTER	6		Reserved
40	(28)	CHARACTER	8	ENF51C_FAILED_SYSTEM	Name of failing system. Valid only for ENF51C_RECOVERY qualifier.
48	(30)	CHARACTER	1	ENF51C_RIB(0)	Beginning of RIB/RIBE data
Constant values					

Table 1022. Structure ENF51C (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	X'1'	0	ENF51CVER1	"1" First version of ENF51C
48	(30)	X'2'	0	ENF51CVER2	"2" Second version of ENF51C
48	(30)	X'3'	0	ENF51CVER3	"3" Third version of ENF51C
48	(30)	X'3'	0	ENF51CCVER	"3" Current version of ENF51C
		.... ....		ENF51C_ALL_CONT	"X'01000000'" ENFREQ qualifier value requesting all contention data, excluding "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
		.... ...1		ENF51C_LCONT	"X'01000001'" ENFREQ qualifier value requesting local contention data, excluding "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
		.... ..1.		ENF51C_GCONT	"X'01000002'" ENFREQ qualifier value requesting global contention data, excluding "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
48	(30)	BITSTRING	0	ENF51C_ALL_CONTX	"X'01000100'" ENFREQ qualifier value requesting all contention data, specifically from "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
48	(30)	BITSTRING	0	ENF51C_LCONTX	"X'01000101'" ENFREQ qualifier value requesting local contention data, specifically from "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
48	(30)	BITSTRING	0	ENF51C_GCONTX	"X'01000102'" ENFREQ qualifier value requesting global contention data, specifically from "waitless contention" resulting from RET=USE and RET=CHNG type ENQs
		.... ..11		ENF51C_RECOVERY	"X'01000003'" ENFREQ qualifier value requesting contention recovery data
48	(30)	X'30'	0	ENF51C_LEN	"*-ENF51C"

Table 1023. Cross Reference for ISGE51CN

Name	Offset	Hex Tag
ENF51C	0	
ENF51C_ALL_CONT	30	0
ENF51C_ALL_CONTX	30	100
ENF51C_CONTENTION_DATA	10	
ENF51C_CONTENTION_EXISTS	10	80
ENF51C_DATA_INCOMPLETE	10	10
ENF51C_EVENTS_COMBINED	12	
ENF51C_FAILED_SYSTEM	28	
ENF51C_FLAGS	10	
ENF51C_GCONT	30	2
ENF51C_GCONTX	30	102
ENF51C_HEADER	0	
ENF51C_LCONT	30	1

Table 1023. Cross Reference for ISGE51CN (continued)

Name	Offset	Hex Tag
ENF51C_LCONTX	30	101
ENF51C_LEN	30	30
ENF51C_RECOVERY	30	3
ENF51C_RIB	30	
ENF51C_RIB_OFFSET	1C	
ENF51C_RIB_SIZE	1E	
ENF51C_RIBE_SIZE	20	
ENF51C_SYSTEM_ERROR	10	20
ENF51C_SYSTEM_ERROR_CLEARED	10	8
ENF51C_SYSTEM_FAILURE	10	40
ENF51C_TIMESTAMP	14	
ENF51CCVER	30	3
ENF51CID	0	
ENF51CLEN	8	
ENF51CVERS	6	
ENF51CVER1	30	1
ENF51CVER2	30	2
ENF51CVER3	30	3

## ISGE51RN information

### ISGE51RN programming interface information

ISGE51RN is a programming interface.

### ISGE51RN heading information

<b>Common name:</b>	Job Suspension/Resumption due to RNL Change (ENF Event Code 51)
<b>Macro ID:</b>	ISGE51RN
<b>DSECT name:</b>	ENF51R - Job suspension due to RNL change ENF51R_RESOURCE_NAME
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	ENF51R Offset: 0 Length: 6 bytes
<b>Storage attributes:</b>	Main Storage: No Virtual Storage: Yes Auxiliary Storage: Yes Subpool: 241 Key: 0 Data Space: No Residency: ANY

**Size:** ENF51R -- X'0020' bytes  
 ENF51R\_RESOURCE\_NAME -- X'0008' bytes  
 + length of RNAME

**Created by:** GRS or ENF

**Pointed to by:** First word of the address list pointed to by register 1 on entry to an ENF listen exit

**Serialization:** None

**Function:** Describes a resource request that causes a job to be suspended because an RNL change is in progress or resumed following the RNL change (ENF event code 51).

## ISGE51RN mapping

Table 1024. Structure ENF51R

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF51R	RNL job suspension/resumption data
0	(0)	CHARACTER	16	ENF51R_HEADER	Header information
0	(0)	CHARACTER	6	ENF51RID	Control block identifier 'ENF51R'
6	(6)	SIGNED	2	ENF51RVERS	Version number. Current version is ENF51RCVER.
8	(8)	SIGNED	2	ENF51RLEN	Length of ENF51R control block (including ENF51R_RESOURCE_DATA)
10	(A)	SIGNED	2	ENF51R_RES_OFFSET	Offset to the resource name (mapped by ENF51R_RESOURCE_DATA)
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	16	ENF51R_DATA	Data pertaining to job and resource
16	(10)	SIGNED	2	ENF51R_ASID	ASID of address space in which job was running
18	(12)	BITSTRING	1	ENF51R_JOB_FLAGS	Job-related flags
Bit definitions:					
		1... ....		ENF51R_JOB_SUSPENDED	"X'80'" On if job has been suspended, off if job has resumed
19	(13)	BITSTRING	1	ENF51R_RESOURCE_FLAGS	Resource description
Bit definitions:					
		1... ....		ENF51R_SYSTEM_SCOPE	"X'80'" Resource scope was SYSTEM
		.1.. ....		ENF51R_SYSTEMS_SCOPE	"X'40'" Resource scope was SYSTEMS
		..1. ....		ENF51R_SHARED	"X'20'" On if requesting shared ownership, off if requesting exclusive ownership
20	(14)	BITSTRING	1	ENF51R_RNAME_LEN	Length of resource RNAME
21	(15)	CHARACTER	3		Reserved
24	(18)	CHARACTER	8	ENF51R_TIMESTAMP	Time at which job was suspended
32	(20)	CHARACTER	1	ENF51R_END(0)	End of base part of ENF51R parameter list
Constant values					
32	(20)	X'1'	0	ENF51RVER1	"1" First version of ENF51R

Table 1024. Structure ENF51R (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	X'1'	0	ENF51RCVER	"1" Current version of ENF51R
32	(20)	X'F1'	0	ENF51R_KSUBPOOL	"241" Storage subpool for parameter list
		.... ....		ENF51R_ALL_RNL	"X'02000000'" ENFREQ qualifier value requesting all RNL data
		.... ...1		ENF51R_SUSPEND	"X'02000001'" ENFREQ qualifier value requesting job suspension data
		.... ..1.		ENF51R_RESUME	"X'02000002'" ENFREQ qualifier value requesting job resumption data
32	(20)	X'20'	0	ENF51R_LEN	"*-ENF51R"

Table 1025. Structure ENF51R\_RESOURCE\_NAME

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF51R_RESOURCE_NAME	
Resource requested when job was suspended					
0	(0)	CHARACTER	8	ENF51R_QNAME	Resource QNAME
8	(8)	CHARACTER	1	ENF51R_RNAME(0)	Beginning of RNAME
8	(8)	X'8'	0	ENF51R_RESOURCE_NAME_LEN	"*-ENF51R_RESOURCE_NAME"

Table 1026. Cross Reference for ISGE51RN

Name	Offset	Hex	Tag
ENF51R	0		
ENF51R_ALL_RNL	20		0
ENF51R_ASID	10		
ENF51R_DATA	10		
ENF51R_END	20		
ENF51R_HEADER	0		
ENF51R_JOB_FLAGS	12		
ENF51R_JOB_SUSPENDED	12		80
ENF51R_KSUBPOOL	20		F1
ENF51R_LEN	20		20
ENF51R_QNAME	0		
ENF51R_RES_OFFSET	A		
ENF51R_RESOURCE_FLAGS	13		
ENF51R_RESOURCE_NAME	0		
ENF51R_RESOURCE_NAME_LEN	8		8
ENF51R_RESUME	20		2
ENF51R_RNAME	8		
ENF51R_RNAME_LEN	14		
ENF51R_SHARED	13		20
ENF51R_SUSPEND	20		1

Table 1026. Cross Reference for ISGE51RN (continued)

Name	Offset	Hex Tag
ENF51R_SYSTEM_SCOPE	13	80
ENF51R_SYSTEMS_SCOPE	13	40
ENF51R_TIMESTAMP	18	
ENF51RCVER	20	1
ENF51RID	0	
ENF51RLEN	8	
ENF51RVERS	6	
ENF51RVER1	20	1

## ISGLMASM information

### ISGLMASM programming interface information

ISGLMASM is a programming interface.

### ISGLMASM heading information

<b>Common name:</b>	GRS Latch Manager Services Assembler Declares
<b>Macro ID:</b>	ISGLMASM
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	None
<b>Storage attributes:</b>	Main Storage: N/A
<b>Size:</b>	0 bytes
<b>Created by:</b>	N/A
<b>Pointed to by:</b>	N/A
<b>Serialization:</b>	None
<b>Function:</b>	Defines assembler constants for the use of GRS Latch Manager

### ISGLMASM mapping

Table 1027. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	ISGLCRT_PRIVATE	"0"
0	(0)	X'2'	0	ISGLCRT_LOWSTGUSAGE	"2"
0	(0)	X'40'	0	ISGLCRT_DEADLOCKDET1	"64"
0	(0)	X'80'	0	ISGLCRT_DEADLOCKDET2	"128"
GRS Latch Manager Latch Create Return Codes					
0	(0)	X'0'	0	ISGLCRT_SUCCESS	"0"



Table 1027. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	X'4'	0	ISGLCRT_DUPLICATE_NAME	"4"
0	(0)	X'10'	0	ISGLCRT_NO_STORAGE	"16"
GRS Latch Manager Latch Obtain Option Constants					
0	(0)	X'0'	0	ISGLOBT_SYNC	"0"
0	(0)	X'1'	0	ISGLOBT_COND	"1"
0	(0)	X'2'	0	ISGLOBT_ASYNC_ECB	"2"
GRS Latch Manager Latch Obtain Access Constants					
0	(0)	X'0'	0	ISGLOBT_EXCLUSIVE	"0"
0	(0)	X'1'	0	ISGLOBT_SHARED	"1"
GRS Latch Manager Latch Obtain Return Codes					
0	(0)	X'0'	0	ISGLOBT_SUCCESS	"0"
0	(0)	X'4'	0	ISGLOBT_CONTENTION	"4"
GRS Latch Manager Latch Release Option Constants					
0	(0)	X'0'	0	ISGLREL_UNCOND	"0"
0	(0)	X'1'	0	ISGLREL_COND	"1"
GRS Latch Manager Latch Release Return Codes					
0	(0)	X'0'	0	ISGLREL_SUCCESS	"0"
0	(0)	X'4'	0	ISGLREL_NOT_OWNED_ECB_REQUEST	"4"
0	(0)	X'8'	0	ISGLREL_STILL_SUSPENDED	"8"
0	(0)	X'C'	0	ISGLREL_INCORRECT_LATCH_TOKEN	"12"
GRS Latch Manager Latch Purge Return Codes					
0	(0)	X'0'	0	ISGLPRG_SUCCESS	"0"
0	(0)	X'4'	0	ISGLPRG_DAMAGE_DETECTED	"4"
GRS Latch Manager Latch Identity Return Codes					
0	(0)	X'0'	0	ISGLID_SUCCESS	"0"
0	(0)	BITSTRING	0	ISGLID_REPLACED	"X'00000401'"
GRS Latch Manager Latch Identity Entry Mapping					
0	(0)	DBL WORD	8	(0)	

Table 1028. Structure ISGYLID\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ISGYLID_ENTRY	

Table 1028. Structure ISGYLID\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
<p>The following thresholds may be used either by GRS, or by an application requesting information from GRS about this latch. How these values will be used by applications is not discussed here. Please see the documentation for individual applications for details on if and how they are used</p>					
0	(0)	SIGNED	4	LIDHOLDTHRESHOLD	The time in seconds that is not normal for this latch to be held. With this field, a value of x'00000000' is deemed to mean "take the default." This allows users to not have to specify the default value of x'FFFFFFFF' in every entry. The default value indicates that no matter how long this latch is held, it should not be treated as an exception. An example usage of this field would be for an application to issue a message if it were to find a latch held for a time period longer than that specified here, even if no contention exists.
4	(4)	SIGNED	4	LIDCONTTHRESHOLD	The time in seconds that is not out of the for this latch to be in contention. For example, when D GRS,ANALYZE,LATCH,BLOCKER and D GRS,ANALYZE,LATCH,WAITER process this element, it will be ignored unless the current longest waiter's wait time exceeds this threshold. A value greater than x'1D55600' (one year) will be treated by these commands as an indication to never display this latch.
8	(8)	ADDRESS	8	LIDPRINTABLESTRING@	address of printable (EBCDIC) string
16	(10)	SIGNED	2	LIDPRINTABLESTRINGLENGTH	length of printable (EBCDIC) string
18	(12)	CHARACTER	10		reserved for future use
18	(12)	X'1C'	0	ISGYLID_ENTRY_LEN	"*-ISGYLID_ENTRY"
18	(12)	X'1'	0	ISGYLID_VERSION1	"1" Version of the ISGYLID_Entry.
18	(12)	X'1'	0	ISGYLID_MAXVERSION	"ISGYLID_VERSION1" Maximum version of the ISGYLID_Entry.
End of GRS Latch Manager Services Declarations					

Table 1029. Cross Reference for ISGLMASM

Name	Offset	Hex Tag
ISGLCRT_DEADLOCKDET1	0	40
ISGLCRT_DEADLOCKDET2	0	80
ISGLCRT_DUPLICATE_NAME	0	4
ISGLCRT_LOWSTGUSAGE	0	2
ISGLCRT_NO_STORAGE	0	10
ISGLCRT_PRIVATE	0	0
ISGLCRT_SUCCESS	0	0
ISGLID_REPLACED	0	401
ISGLID_SUCCESS	0	0
ISGLOBT_ASYNC_ECB	0	2

Table 1029. Cross Reference for ISGLMASM (continued)

Name	Offset	Hex Tag
ISGLOBT_COND	0	1
ISGLOBT_CONTENTION	0	4
ISGLOBT_EXCLUSIVE	0	0
ISGLOBT_SHARED	0	1
ISGLOBT_SUCCESS	0	0
ISGLOBT_SYNC	0	0
ISGLPRG_DAMAGE_DETECTED	0	4
ISGLPRG_SUCCESS	0	0
ISGLREL_COND	0	1
ISGLREL_INCORRECT_LATCH_TOKEN	0	C
ISGLREL_NOT_OWNED_ECB_REQUEST	0	4
ISGLREL_STILL_SUSPENDED	0	8
ISGLREL_SUCCESS	0	0
ISGLREL_UNCOND	0	0
ISGYLID_ENTRY	0	
ISGYLID_ENTRY_LEN	12	1C
ISGYLID_MAXVERSION	12	1
ISGYLID_VERSION1	12	1
LIDCONTTHRESHOLD	4	
LIDHOLDTHRESHOLD	0	
LIDPRINTABLESTRING@	8	
LIDPRINTABLESTRINGLENGTH	10	

## ISGYCNFP information

### ISGYCNFP programming interface information

ISGYCNFP is a programming interface.

### ISGYCNFP heading information

<b>Common name:</b>	Contention Notification Filter Parameter list
<b>Macro ID:</b>	ISGYCNFP
<b>DSECT name:</b>	CNFP
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	CNFP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 229 Key: 0 Residency: Above the 16M line

**Size:** LENGTH(CNFP)  
CNFP -- X'00B0' bytes

**Created by:** ISGGCN

**Pointed to by:** R1 points to the CNFP on entry to the exit routine

**Serialization:** N/A

**Function:** The Contention Notification Filter Parameter list is passed to an installation provided exit routine installed at the ISGNQXITSYSTEM or ISGNQXITSYSPLEX exit point, depending on the scope of the resource. It gives the installation the ability to filter out ENF 51 signal processing on a resource basis. The resource name information referenced in the parameter list should not be altered. Additional information about the request is also provided when available and can be used by contention monitors.

## ISGYCNFP mapping

Table 1030. Structure CNFP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CNFP	+00x----- -----
0	(0)	CHARACTER	4	CNFP_ID	Eyecatcher
4	(4)	BITSTRING	1	CNFP_VERSION	Version
5	(5)	CHARACTER	3		Reserved
8	(8)	ADDRESS	4	CNFP_WORKAREA@	Pointer to a 4K work area, usable by exit routines
12	(C)	CHARACTER	4	CNFP_FLAGS(0)	
12	(C)	CHARACTER	2	CNFP_OUTPUTFLAGS(0)	
		1... ..		CNFP_FILTER	"X'80'" When set to 1 by the exit routine, ENF 51 processing will be bypassed for this resource.
14	(E)	CHARACTER	2	CNFP_INPUTFLAGS(0)	
		1... ..		CNFP_SYSTEM	"X'80'" When 1, the exit routine is being called for the ISGCNFXITSYSTEM entry point. When 0, the exit routine is being called for the ISGCNFXITSYSPLEX entry point.
		.1.. ..		CNFP_CONTENTIONSTART	"X'40'" When 1, this exit is being called for a start of contention event
		..1. ....		CNFP_CONTENTIONCHANGE	"X'20'" When 1, this exit is being called for a change of contention event
		...1 ....		CNFP_CONTENTIONEND	"X'10'" When 1, this exit is being called for a end of contention event
		.... 1...		CNFP_REQUESTDATAAVAILABLE	"X'08'" When 1, the fields in Cnfp_RequestData are valid. This bit is only valid when version is Cnfp_kVersion#2 and above.
					+10x----- --
16	(10)	ADDRESS	4	CNFP_QNAME@	Pointer to resource Qname
20	(14)	ADDRESS	4	CNFP_RNAME@	Pointer to resource Rname
24	(18)	SIGNED	4	CNFP_RLEN	Length of resource Rname

Table 1030. Structure CNFP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
28	(1C)	CHARACTER	4		Reserved ***** ***** Fields below this line only available with version 2 and higher ***** ** *****
32	(20)	CHARACTER	144	CNFP_REQUESTDATA(0)	ENQ/DEQ request state information, these values cannot be changed. These fields are only available when Cnfp_RequestDataAvailable is set. +20x----- - - - - -
32	(20)	CHARACTER	32	CNFP_RSCTOKEN	Token uniquely identifying the resource. The token represents the local systems view of the resource and expires when no requests for the resource remain. Additionally, in Star mode the token expires when the local system no longer has interest in (i.e. requests for) the resource. +40x----- - - - - -
64	(40)	CHARACTER	32	CNFP_ENQTOKEN	Token uniquely identifying the queued request to the resource. +60x----- - - - - -
96	(60)	CHARACTER	16	CNFP_RD_REQUESTTOKEN	Unique token identifying the GRS exit call processing for the request. If needed, all exits driven for this request can use this token to identify the same request. See the prologue for more information. +70x----- - - - - -
112	(70)	BITSTRING	1	REQUESTFLAGS(0)	Flags about request
		1... ....		CNFP_ENDOFTASK	"X'80'" When 1, this contention event is a result of task termination. Note that the only RequestData fields that are valid when Cnfp_EndOfTask is set are the above tokens, the ASCB, TCB, and final scope. All others are not applicable nor set.
		.1... ....		CNFP_ENDOFMEMORY	"X'40'" When 1, this contention event is a result of address space termination. Note that the only RequestData fields that are valid when Cnfp_EndOfMemory is set are the above tokens, the ASCB, and final scope. All others are not applicable nor set.
		..1. ....		CNFP_INTERNALREQUEST	"X'20'" When 1, this contention event is a result of an internal GRS request and is not a direct result of ENQ/DEQ on behalf of a caller. Note that the only RequestData fields that are valid when Cnfp_InternalRequest is set are the above tokens, the ASCB, TCB, and final scope. All others are not applicable nor set.
113	(71)	CHARACTER	7		Reserved
120	(78)	ADDRESS	4	CNFP_RD_ASCB@	Pointer to requester's ASCB

Table 1030. Structure CNFP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
124	(7C)	ADDRESS	4	CNFP_RD_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified. Note that if Cnfp_RD_MASID is zero then the request is not treated as a MASID/MTCB request. +80x----- -----
128	(80)	BITSTRING	1	CNFP_RD_SCOPE	Final resolved request scope after any exit and RNL changes. See Cnfp_kScope values.
129	(81)	BITSTRING	1	CNFP_RD_ORIGINALSCOPE	Scope before exit and RNL processing. See Cnfp_kScope values.
130	(82)	BITSTRING	1	CNFP_RD_RET(0)	Request RET value, see Cnfp_kRET values
		.... .1..		CNFP_RD_RET1	"X'04'" Maps to PELRET1
		.... ..1.		CNFP_RD_RET2	"X'02'" Maps to PELRET2
		.... ...1		CNFP_RD_RET3	"X'01'" Maps to PELRET3
131	(83)	CHARACTER	1		Reserved
132	(84)	ADDRESS	4	CNFP_RD_UCB@	Request UCB address after ISGNQXIT/FAST and RNL processing. Only valid when Cnfp_SF1_ENQ is set. Note that the actual device RESERVE will not be issued when Cnfp_SF3_Converted is set
136	(88)	SIGNED	2	CNFP_RD_MASID	Request MASID value. This field might be cleared to zero indicating the request was not processed as a MASID request (such as when the targeted task was not found or the request could be a true owner).
138	(8A)	BITSTRING	1	CNFP_RD_NQXITSCOPE	Scope value after ISGNQXITFAST and ISGNQXIT processing. A comparison with Cnfp_RD_OriginalScope determines if the exit changed the scope. See Cnfp_kScope values.
139	(8B)	CHARACTER	1		Reserved
140	(8C)	ADDRESS	4	CNFP_RD_MTCB	Request MTCB value +90x----- -----
144	(90)	CHARACTER	8	CNFP_RD_JOBNAME	Requester's Jobname
152	(98)	CHARACTER	8	CNFP_RD_SYSNAME	Requester's Sysname +A0x----- ----- -
160	(A0)	ADDRESS	4	CNFP_RD_NSI@(0)	Requester's next sequential instruction address, when ENQ/DEQ ends, this is address of the next instruction in the calling program that will be executed
		1... ....		CNFP_RD_AMODE31	"X'80'" When set, ENQ caller is AMODE 31 or 64
164	(A4)	ADDRESS	4	CNFP_RD_ECB@	Pointer to original request ECB (set when ECB= specified on the request)
168	(A8)	CHARACTER	3	CNFP_STATEFLAGS(0)	ENQ/DEQ request state flags
168	(A8)	BITSTRING	1	CNFP_STATEFLAGS1(0)	First byte of state flags
		1... ....		CNFP_SF1_ENQ	"X'80'" When 1, request is ENQ/RESERVE, when 0, request is DEQ. If Cnfp_SF1_ISGENQ is set then when 1, ISGENQ REQUEST=OBTAIN or CHANGE, when 0, REQUEST=RELEASE. See Cnfp_SF2_Change to distinguish between ISGENQ REQUEST=OBTAIN and REQUEST=CHANGE.

Table 1030. Structure CNFP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.1.. ....		CNFP_SF1_AUTHORIZED	"X'40'" Caller is authorized. That is the requester was at least one of the following: Supervisor state, PSW key 0-7, or APF authorized.
		..1. ....		CNFP_SF1_MATCHTASK	"X'20'" When 1, request specified MASID/MTCB. Note that if Cnfp_RD_MASid is zero then the request is not treated as a MASID/MTCB request.
		...1 ....		CNFP_SF1_SMCORRM	"X'10'"
		...1 ....		CNFP_SF1_STEPMUSTCOMPLETE	"X'10'" When 1, ENQ request specified SMC=YES
		...1 ....		CNFP_SF1_RESETMUSTCOMPLETE	"X'10'" When 1, DEQ request specified RMC=YES
		.... 1...		CNFP_SF1_LINKAGE	"X'08'" When 1, request is PC entered when 0, request is SVC entered. As ISGENQ requests are all PC entered, this bit will be 1 for all ISGENQ requests.
		.... .1..		CNFP_SF1_ISGENQ	"X'04'" When 1, request is ISGENQ
		.... ..1.		CNFP_SF1_ISGENQCONDYES	"X'02'" When 1, request is a conditional ISGENQ request (ISGENQ COND=YES)
169	(A9)	BITSTRING	1	CNFP_STATEFLAGS2(0)	Second byte of state flags
		1... ....		CNFP_SF2_SHARE	"X'80'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
		.1.. ....		CNFP_SF2_RNLQNO	"X'40'" RNL=NO was specified on the request
		..1. ....		CNFP_SF2_CHANGE	"X'20'" When 1, request is a change (i.e. ENQ RET=CHNG or ISGENQ REQUEST=CHANGE).
		...1 ....		CNFP_SF2_TEST_YES	"X'10'" When 1, ISGENQ with TEST=YES. When 0, Not ISGENQ with TEST=YES (i.e. TEST=NO if Cnfp_SF1_ISGENQ is set).
		.... 1...		CNFP_SF2_CONTENTIONACT_FAIL	"X'08'" When 1, ISGENQ with CONTENTIONACT=FAIL. When 0, not CONTENTIONACT=FAIL (i.e. CONTENTIONACT=WAIT if Cnfp_SF1_ISGENQ is set and Cnfp_SF2_TEST_YES is off).
		.... .1..		CNFP_SF2_ECB	"X'04'" When 1, ECB keyword specified (i.e. ISGENQ WAITTYPE=ECB or or ENQ with ECB). When 0, No ECB specified (i.e. WAITTYPE=SUSPEND if Cnfp_SF1_ISGENQ is set and Cnfp_SF2_TEST_YES and Cnfp_SF2_CONTENTIONACT_FAIL are off).
170	(AA)	BITSTRING	1	CNFP_STATEFLAGS3(0)	Third byte of state flags
		1... ....		CNFP_SF3_INCLUDED	"X'80'" Resource promoted to SYSTEMS scope
		.1.. ....		CNFP_SF3_CONVERTED	"X'40'" Resource converted from RESERVE to SYSTEMS ENQ only. As such, the device RESERVE will not be issued, but Cnfp_RD_Ucb@ will still be set
		..1. ....		CNFP_SF3_EXCLUDED	"X'20'" Resource demoted to SYSTEM scope

Table 1030. Structure CNFP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 ....		CNFP_SF3_GLOBAL	"X'10'" Resource request will be processed globally by GRS. Note Cnfp_SF3_Global will always be off in GRS=NONE mode.
171	(AB)	CHARACTER	5		Reserved +B0x----- -----
176	(B0)	CHARACTER	1	CNFP_END(0)	
CNFP Constants					
176	(B0)	X'D5C6D7'	0	CNFP_KID	"C'CNFP'" Eyecatcher
176	(B0)	X'1'	0	CNFP_KVERSION#1	"1" Original version (0W53323)
176	(B0)	X'2'	0	CNFP_KVERSION#2	"2" Version HBB7760
176	(B0)	X'2'	0	CNFP_KCURRENTVERSION	"2" Current version (same)
176	(B0)	X'0'	0	CNFP_KSCOPESTEP	"0" Scope=Step
176	(B0)	X'1'	0	CNFP_KSCOPESYSTEM	"1" Scope=System
176	(B0)	X'2'	0	CNFP_KSCOPESYSTEMS	"2" Scope=Systems
176	(B0)	X'0'	0	CNFP_KRETNONE	"0" Ret=None
176	(B0)	X'1'	0	CNFP_KRETHAVE	"1" Ret=Have
176	(B0)	X'2'	0	CNFP_KRETCHNG	"2" Ret=Chng
176	(B0)	X'3'	0	CNFP_KRETUSE	"3" Ret=Use
176	(B0)	X'7'	0	CNFP_KRETTTEST	"7" Ret=Test
176	(B0)	X'4'	0	CNFP_KRETECB	"4" An ECB is specified for this ENQ request, via either the ECB= parameter on ENQ or the WAITTYPE=ECB parameter on ISGENQ REQUEST=OBTAIN
176	(B0)	X'F0'	0	CNFP_KSF3MASK	"240" Mask for copying from PelXFlg1 to Cnfp_StateFlags3
176	(B0)	X'B0'	0	CNFP_LEN	"*-CNFP"

Table 1031. Cross Reference for ISGYCNFP

Name	Offset	Hex Tag
CNFP	0	
CNFP_CONTENTIONCHANGE	E	20
CNFP_CONTENTIONEND	E	10
CNFP_CONTENTIONSTART	E	40
CNFP_END	B0	
CNFP_ENDOFMEMORY	70	40
CNFP_ENDOFTASK	70	80
CNFP_ENQTOKEN	40	
CNFP_FILTER	C	80
CNFP_FLAGS	C	
CNFP_ID	0	
CNFP_INPUTFLAGS	E	
CNFP_INTERNALREQUEST	70	20
CNFP_KCURRENTVERSION	B0	2



Table 1031. Cross Reference for ISGYCNFP (continued)

Name	Offset	Hex Tag
CNFP_KID	B0	D5C6D7
CNFP_KRECHNG	B0	2
CNFP_KRETECB	B0	4
CNFP_KRETHAVE	B0	1
CNFP_KRETNONE	B0	0
CNFP_KRETTTEST	B0	7
CNFP_KRETUSE	B0	3
CNFP_KSCOPESTEP	B0	0
CNFP_KSCOPESYSTEM	B0	1
CNFP_KSCOPESYSTEMS	B0	2
CNFP_KSF3MASK	B0	F0
CNFP_KVERSION#1	B0	1
CNFP_KVERSION#2	B0	2
CNFP_LEN	B0	B0
CNFP_OUTPUTFLAGS	C	
CNFP_QNAME@	10	
CNFP_RD_AMODE31	A0	80
CNFP_RD_ASCB@	78	
CNFP_RD_ECB@	A4	
CNFP_RD_JOBNAME	90	
CNFP_RD_MASID	88	
CNFP_RD_MTCB	8C	
CNFP_RD_NQXITSCOPE	8A	
CNFP_RD_NSI@	A0	
CNFP_RD_ORIGINALSCOPE	81	
CNFP_RD_REQUESTTOKEN	60	
CNFP_RD_RET	82	
CNFP_RD_RET1	82	4
CNFP_RD_RET2	82	2
CNFP_RD_RET3	82	1
CNFP_RD_SCOPE	80	
CNFP_RD_SYSNAME	98	
CNFP_RD_TCB@	7C	
CNFP_RD_UCB@	84	
CNFP_REQUESTDATA	20	
CNFP_REQUESTDATAAVAILABLE	E	8
CNFP_RLEN	18	
CNFP_RNAME@	14	
CNFP_RSCTOKEN	20	

Table 1031. Cross Reference for ISGYCNFP (continued)

Name	Offset	Hex Tag
CNFP_SF1_AUTHORIZED	A8	40
CNFP_SF1_ENQ	A8	80
CNFP_SF1_ISGENQ	A8	4
CNFP_SF1_ISGENQCONDYES	A8	2
CNFP_SF1_LINKAGE	A8	8
CNFP_SF1_MATCHTASK	A8	20
CNFP_SF1_RESETMUSTCOMPLETE	A8	10
CNFP_SF1_SMCORRM	A8	10
CNFP_SF1_STEPMUSTCOMPLETE	A8	10
CNFP_SF2_CHANGE	A9	20
CNFP_SF2_CONTENTIONACT_FAIL	A9	8
CNFP_SF2_ECB	A9	4
CNFP_SF2_RNLEQNO	A9	40
CNFP_SF2_SHARE	A9	80
CNFP_SF2_TEST_YES	A9	10
CNFP_SF3_CONVERTED	AA	40
CNFP_SF3_EXCLUDED	AA	20
CNFP_SF3_GLOBAL	AA	10
CNFP_SF3_INCLUDED	AA	80
CNFP_STATEFLAGS	A8	
CNFP_STATEFLAGS1	A8	
CNFP_STATEFLAGS2	A9	
CNFP_STATEFLAGS3	AA	
CNFP_SYSTEM	E	80
CNFP_VERSION	4	
CNFP_WORKAREA@	8	
REQUESTFLAGS	70	

## ISGYCON information

### ISGYCON programming interface information

ISGYCON is a programming interface.

### ISGYCON heading information

<b>Common name:</b>	Constants for users of GRS services
<b>Macro ID:</b>	ISGYCON
<b>DSECT name:</b>	N/A
<b>Owning component:</b>	Global Resource Serialization (SCSDS)

**Eye-catcher ID:** None

**Storage attributes:** Main Storage: N/A

**Size:** 0 bytes

**Created by:** N/A

**Pointed to by:** N/A

**Serialization:** None

**Function:** Provides a list of constants for users of GRS services and exits.

## ISGYCON mapping

Table 1032. Structure

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
ISGYCON_1; Return Codes from ENQ/DEQ ENQ RET=TEST Return Codes					
0	(0)	X'0'	0	ENQ_KTESTRCRESOURCEISAVAILABLE	"0"
0	(0)	X'4'	0	ENQ_KTESTRCRESOURCEISNOTAVAILABLE	"4"
0	(0)	X'8'	0	ENQ_KTESTRCPREVIOUSREQALREADYOWNS	"8"
0	(0)	X'14'	0	ENQ_KTESTRCPREVIOUSREQDOESNOTOWN	"20"
0	(0)	X'20'	0	ENQ_KTESTRCMATCHINGTASKOWNS	"32"
ENQ RET=USE Return Codes					
0	(0)	X'0'	0	ENQ_KUSERCRESOURCEOWNED	"0"
0	(0)	X'4'	0	ENQ_KUSERCRESOURCENOTOWNED	"4"
0	(0)	X'8'	0	ENQ_KUSERCPREVIOUSREQALREADYOWNS	"8"
0	(0)	X'14'	0	ENQ_KUSERCPREVIOUSREQDOESNOTOWN	"20"
0	(0)	X'18'	0	ENQ_KUSERCENVIRONMENTALERROR	"24"
ENQ RET=CHNG Return Codes					
0	(0)	X'0'	0	ENQ_KCHNGRCRESOURCECHANGED	"0"
0	(0)	X'4'	0	ENQ_KCHNGRCRESOURCENOTCHANGED	"4"
0	(0)	X'8'	0	ENQ_KCHNGRCRESOURCENOTREQD	"8"
0	(0)	X'14'	0	ENQ_KCHNGRCRESOURCENOTOWNED	"20"

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	X'18'	0	ENQ_KCHNGRCENVIRONMENTALERROR	"24"
ENQ RET=HAVE ReturnCodes					
0	(0)	X'0'	0	ENQ_KHAVERCRESOURCEOWNED	"0"
0	(0)	X'8'	0	ENQ_KHAVERCPREVIOUSREQALREADYOWNS	"8"
0	(0)	X'14'	0	ENQ_KHAVERCPREVIOUSREQDOESNOTOWN	"20"
0	(0)	X'18'	0	ENQ_KHAVERCENVIRONMENTALERROR	"24"
0	(0)	X'20'	0	ENQ_KHAVERCMATCHINGTASKOWNS	"32"
0	(0)	X'28'	0	ENQ_KHAVERCCALLERCANNOTUSE	"40"
0	(0)	X'44'	0	ENQ_KHAVERCMATCHINGTASKVIOLATION	"68"
ENQ RET=ECB ReturnCodes					
0	(0)	X'0'	0	ENQ_KECBRCRESOURCEOWNED	"0"
0	(0)	X'4'	0	ENQ_KECBRCWILLBEPOSTED	"4"
0	(0)	X'8'	0	ENQ_KECBRCPREVIOUSREQALREADYOWNS	"8"
0	(0)	X'14'	0	ENQ_KECBRCPREVIOUSREQDOESNOTOWN	"20"
0	(0)	X'18'	0	ENQ_KECBRCENVIRONMENTALERROR	"24"
0	(0)	X'24'	0	ENQ_KECBRCWAITTOOWNEXCLUSIVE	"36"
DEQ ReturnCodes					
0	(0)	X'0'	0	DEQ_KRCRESOURCERELEASED	"0"
0	(0)	X'4'	0	DEQ_KRCRESOURCEPREVIOUSREQDOESNOTOWN	"4"
0	(0)	X'8'	0	DEQ_KRCRESOURCENOTOWNED	"8"
Reason Codes -- GRS ABEND Reason Codes (Note that the reason codes are of the form "xxxxYYYY" where "xxxx" is used to contain the module id of the failing module. Module ids can be found in ISGYMT or ISGFID) Also see ISGCONST for internal reason codes.					
0	(0)	BITSTRING	0	ISGRSNCODEMASK	"X'0000FFFF'" Used to mask off the high half word to remove the module id from the ABEND and reason codes
3xx Abend Reason codes					
....	...1			ISGRSNCODEUNAUTHNQDQOFAUTHRESOURCE	"X'00000001'" An unauthorized requester attempted to ENQ or DEQ an authorized resource

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1.		ISGRSNCODEUNAUTHNQDQOFAUTHRESOURCEBYEXIT	"X'00000002'" An ISGNQXIT installation exit specified an authorized resource name for an unauthorized request
		.... .11		ISGRSNCODEUCBNOTALLOCATED	"X'00000003'" An unauthorized requester attempted to RESERVE a device that is not allocated to the requesting task
		.... .1..		ISGRSNCODEUCBNOTALLOCATEDBYEXIT	"X'00000004'" An ISGNQXIT installation exit specified a UCB for a device that is not allocated to the requesting, unauthorized task
		.... .1.1		ISGRSNCODEUNAUTHMASIDREQ	"X'00000005'" An unauthorized requester attempted a MASID request
		.... .11.		ISGRSNCODEUNAUTHREQWITHTCBORPELSTPMC	"X'00000006'" An unauthorized requester specified TCB or Step Must Complete
		.... .111		ISGRSNCODEUNAUTHGENERICREQUEST	"X'00000007'" An unauthorized (DEQ) requester attempted to issue a generic request
		.... 1...		ISGRSNCODEUNAUTHECBREQUEST	"X'00000008'" An unauthorized (ENQ) requester attempted to issue an ECB request
4xx Abend Reason codes					
		.... ...1		ISGRSNCODEPARMLISTALTEREDWHILEPROCESSING	"X'00000001'" The input parameter list was altered during ENQ/DEQ processing
		.... .1.		ISGRSNCODERNLNOANDUCBSPECIFIED	"X'00000002'" The RESERVE request specified RNL=NO
		.... .11		ISGRSNCODEINVALIDUCB	"X'00000003'" The storage specified by the input UCB address does not map to a valid UCB
		.... .1..		ISGRSNCODEINVALIDUCBBYEXIT	"X'00000004'" The storage specified by the UCB address specified by an ISGNQXIT exit routine does not map to a valid UCB
		.... .1.1		ISGRSNCODEBADUSERPEL	"X'00000005'" The storage passed to ENQ/DEQ processing could not be accessed in the caller's key
		.... .11.		ISGRSNCODEBADQNAME	"X'00000006'" The storage containing the QNAME could not be accessed in the caller's key
		.... .111		ISGRSNCODEBADRNAME	"X'00000007'" The storage containing the RNAME could not be accessed in the caller's key
		.... 1...		ISGRSNCODEBADUCBPTR	"X'00000008'" The storage containing the pointer to the UCB address could not be accessed in the caller's key
		.... 1..1		ISGRSNCODEBADUCBADDRESS	"X'00000009'" The storage containing the UCB address could not be accessed in the caller's key
		.... 1.1.		ISGRSNCODELOCALRESOURCECOUNTOVERRUN	

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'0000000A'" The local resource count exceeded 'FFFF'x resources
	....	1.11		ISGRSNCODEGLOBALRESOURCECOUNTOVERRUN	
					"X'0000000B'" The global resource count exceeded 'FFFF'x resources
	....	11..		ISGRSNCODEINVALIDFORMATWORD	
					"X'0000000C'" The format word value was invalid
	....	11.1		ISGRSNCODEBADTCBSTORAGE	
					"X'0000000D'" The storage specified by the input TCB is invalid
	....	111.		ISGRSNCODENOTATCB	
					"X'0000000E'" The storage specified by the input TCB does not map to a valid TCB
	....	1111		ISGRSNCODEMASIDREQSPECIFIEDTCBORPELSTPMC	
					"X'0000000F'" A MASID request incorrectly specified TCB or PelStpMC
	...1	....		ISGRSNCODEINVALIDMASIDRNAMELENGTH	
					"X'00000010'" A MASID request has an rname with a bad length
	...1	...1		ISGRSNCODEMASIDREQINVALIDRET	
					"X'00000011'" A MASID request specified invalid RET= value
	...1	..1.		ISGRSNCODEMASIDREQWITHNOTCB	
					"X'00000012'" A MASID request has no TCB associated with it
	...1	..11		ISGRSNCODEMASIDREQSUBTASKOFTARGET	
					"X'00000013'" Issuing tasks TCB is a subtask of the target TCB, illegal
	...1	.1..		ISGRSNCODEREQSETOBSOLETEFLAG	
					"X'00000014'" Request tried to set an obsolete bit in the Pel
	...1	.1.1		ISGRSNCODETCBSPECIFIEDANDPELSTPMC	
					"X'00000015'" Request illegally specified TCB with PelStpMC
	...1	.11.		ISGRSNCODEDEQREQSPECIFIEDPELSAVE	
					"X'00000016'" Deq request illegally specified PelSave
	...1	.111		ISGRSNCODEINVALIDRETSPECIFIED	
					"X'00000017'" Request specified invalid RET= value
	...1	1...		ISGRSNCODEGENERICREQWITHINVALIDRET	
					"X'00000018'" Generic request specified invalid RET= value
	...1	1..1		ISGRSNCODEENQREQSPECIFIEDGENERIC	
					"X'00000019'" Enq request illegally specified PelGen2
	...1	1.1.		ISGRSNCODEDIRENQNONMATCHINGTCB	
					"X'0000001A'" A directed enq request was issued with no matching TCB in the requestor's address space
	...1	1.11		ISGRSNCODEDIRENQANDUCBSPECIFIED	
					"X'0000001B'" Directed enq request illegally specified UCB

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		...1 11..		ISGRSNCODEIRENQNOECBANDINVALIDRET	"X'0000001C'" Directed enq request illegally specified no ECB with an invalid RET= value
		...1 11.1		ISGRSNCODEOECBREQWITHBADRET	"X'0000001D'" This label has a typo but is kept for compatibility
		...1 11.1		ISGRSNCODEECBREQWITHBADRET	"X'0000001D'" An ECB request but RET does not specify ECB
		...1 111.		ISGRSNCODEOECBREQWITHSTEPMUSTCOMPLETE	"X'0000001E'" This label has a typo but is kept for compatibility
		...1 111.		ISGRSNCODEECBREQWITHSTEPMUSTCOMPLETE	"X'0000001E'" An ECB request illegally specified PelStpMC
		...1 1111		ISGRSNCODEBADFORMATWORD	"X'0000001F'" The storage containing the format word could not be accessed in the caller's key
		..1. ....		ISGRSNCODEBADFORMATVALUE	"X'00000020'" The storage containing the format value could not be accessed in the caller's key
		..1. ...1		ISGRSNCODEPARMLISTALETNOTZERO	"X'00000021'" ENQ/DEQ parameter list was not in the primary address space
		..1. ..1.		ISGRSNCODEBADPELPREFIX	"X'00000022'" The storage containing the format value could not be accessed in the caller's key
		..1. ..11		ISGRSNCODESMCINXMEM	"X'00000023'" SMC or RMC was specified while P!=H.
		..1. .1..		ISGRSNCODESRBMODE	"X'00000024'" PC-ENQ or PC-DEQ was entered in SRB mode.
7xx Abend Reason codes					
		.... ....		ISGRSNCODEGENERALFAILURE	"X'00000000'" General module failure in ENQ/DEQ processing
		.... ...1		ISGRSNCODEIOSVDSTFFFAILURE	"X'00000001'" Synchronous RESERVE failed during device state transition flushing
		.... ..1.		ISGRSNCODERESERVESTARTFAILURE	"X'00000002'" RESERVE start processing failed
		.... ...11		ISGRSNCODERESERVEDONEFAILURE	"X'00000003'" Synchronous RESERVE done processing failed
		.... .1..		ISGRSNCODECOULDNOTOBTAINHOMESTORAGE	"X'00000004'" ENQ/DEQ processing could not obtain storage in the home address space
		.... .1.1		ISGRSNCODECOULDNOTOBTAINCOMMONSTORAGE	"X'00000005'" ENQ/DEQ processing could not obtain storage in the common area
		.... .11.		ISGRSNCODECOULDNOTOBTAINPRIMARYALET	"X'00000006'" ENQ/DEQ processing could not obtain the ALET of the caller's primary address space

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .111		ISGRSNCODECOULDNOTSUSPENDFORRNLCCHANGE	"X'00000007'" ENQ processing could not obtain a DSQE to suspend a request for a RNL change
		.... 1...		ISGRSNCODECOULDNOTOBTAINGRSALET	"X'00000008'" ENQ/DEQ processing could not obtain the ALET of the GRS address space
		.... 1..1		ISGRSNCODECOULDNOTOBTAINPRIMARYSTORAGE	"X'00000009'" ENQ/DEQ processing could not obtain storage in the primary address space
0	(0)	BITSTRING	0	ISGRSNCODECOULDNOTQUERYLSE	"X'00000100'" ENQ/DEQ processing could not query the LSE of an ENQ requestor
0	(0)	BITSTRING	0	ISGRSNCODECOULDNOTUPDATELSE	"X'00000200'" ENQ/DEQ processing could not update the LSE of an ENQ requestor
		1111 11.1		ISGRSNCODECSVDYNEXABEND	"X'000000FD'" Abend in CSVDYNEX
		1111 111.		ISGRSNCODEEXITABEND	"X'000000FE'" Abend in dynamic exit
		1111 1111		ISGRSNCODEUCBOVERFLOW	"X'000000FF'" RESERVE processing detected an overflow when updating the RESERVE count
ISGQUERY Return and Reason Codes (Note that the reason codes are of the form "xxxxYYYY" where "xxxx" is used to contain the module id of the failing module. Module ids can be found in ISGYMT or ISGFID) Use ISGRsnCodeMask to remove the module id from the reason codes					
		.... ....		ISGQUERYRC_OK	"X'00000000'"
		.... .1..		ISGQUERYRC_WARN	"X'00000004'"
0	(0)	BITSTRING	0	ISGQUERYRSN_NOMATCHINGRNLE	"X'00000401'"
0	(0)	BITSTRING	0	ISGQUERYRSN_RNLCHANGEINPROGRESS	"X'00000402'"
0	(0)	BITSTRING	0	ISGQUERYRSN_GRSRNLEXCLUDE	"X'00000403'"
0	(0)	BITSTRING	0	ISGQUERYRSN_NOMATCHINGRESOURCES	"X'00000404'"
0	(0)	BITSTRING	0	ISGQUERYRSN_ANSWERAREAFULL	"X'00000405'"
0	(0)	BITSTRING	0	ISGQUERYRSN_GRSNONE	"X'00000406'"
		.... 1...		ISGQUERYRC_PARMERROR	"X'00000008'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADPLISTADDRESS	"X'00000801'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADPLISTALET	"X'00000802'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADPLISTVERSION	"X'00000803'"
0	(0)	BITSTRING	0	ISGQUERYRSN_RESERVEDFIELDNOTNULL	"X'00000804'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADREQINFO	"X'00000805'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNL	"X'00000806'"
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNAMEADDRESS	"X'00000807'"



Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNAMEALET	"X'00000808' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNAMELEN	"X'00000809' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNLEADDRESS	"X'0000080A' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNLEALET	"X'0000080B' "
0	(0)	BITSTRING	0	ISGQUERYRSN_MUTUALLYEXCLUSIVE	"X'0000080C' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADANSAREAADDRESS	"X'0000080D' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADANSAREALET	"X'0000080E' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADSCANACTION	"X'0000080F' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRESUMETOKENADDRESS	"X'00000810' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRESUMETOKENALET	"X'00000811' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADGATHERFROM	"X'00000812' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADSEARCH	"X'00000813' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADENQTOKENADDRESS	"X'00000814' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADENQTOKENALET	"X'00000815' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADQNAMEMATCH	"X'00000816' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADRNAMEMATCH	"X'00000817' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADSCOPE	"X'00000818' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADSERIALIZEBY	"X'00000819' "
0	(0)	BITSTRING	0	ISGQUERYRSN_ANSLENTOO SMALL	"X'0000081A' "
0	(0)	BITSTRING	0	ISGQUERYRSN_RESUMETOKENNOTVALID	"X'0000081B' "
0	(0)	BITSTRING	0	ISGQUERYRSN_RESUMETOKENTOOOLD	"X'0000081C' "
0	(0)	BITSTRING	0	ISGQUERYRSN_ENQTOKENNOTVALID	"X'0000081D' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADREQUESTERLIMIT	"X'0000081E' "
0	(0)	BITSTRING	0	ISGQUERYRSN_NOPOSSIBLEMATCH	"X'0000081F' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADANSDETAIL	"X'00000820' "
0	(0)	BITSTRING	0	ISGQUERYRSN_NOTAUTHTOQSCAN	"X'00000821' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADASID	"X'00000822' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADUSERDATAADDRESS	"X'00000823' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADUSERDATAALET	"X'00000824' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADUSERDATALEN	"X'00000825' "
0	(0)	BITSTRING	0	ISGQUERYRSN_BADUSERDATAMATCH	"X'00000826' "

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	ISGQUERYRSN_BADANALYZE	"X'00000827' "
0	(0)	BITSTRING	0	ISGQUERYRSN_NOTAUTHTOLATCHECA	"X'00000828' "
		.... 11..		ISGQUERYRC_ENVERROR	"X'0000000C' "
0	(0)	BITSTRING	0	ISGQUERYRSN_SRBMODE	"X'00000C01' "
0	(0)	BITSTRING	0	ISGQUERYRSN_NOTENABLED	"X'00000C02' "
0	(0)	BITSTRING	0	ISGQUERYRSN_COMPLEXMIGRATING	"X'00000C03' "
0	(0)	BITSTRING	0	ISGQUERYRSN_CANNOTOBTAINLOCKS	"X'00000C04' "
0	(0)	BITSTRING	0	ISGQUERYRSN_LOCKHELD	"X'00000C05' "
0	(0)	BITSTRING	0	ISGQUERYRSN_MAXCONCURRENTREQUESTS	"X'00000C06' "
0	(0)	BITSTRING	0	ISGQUERYRSN_RINGRESUMEINSTAR	"X'00000C07' "
0	(0)	BITSTRING	0	ISGQUERYRSN_INSUFFICIENTSTORAGE	"X'00000C08' "
0	(0)	BITSTRING	0	ISGQUERYRSN_FRRHELD	"X'00000C09' "
		...1 ....		ISGQUERYRC_COMPERROR	"X'00000010' "
ISGENQ Return and Reason Codes (Note that the reason codes are of the form "xxxxYYYY" where "xxxx" is used to contain the module id of the failing module. Module ids can be found in ISGYMT or ISGFID) Use ISGRsnCodeMask to remove the module id from the reason codes					
		.... ....		ISGENQRC_OK	"X'00000000' "
		.... .1..		ISGENQRC_WARN	"X'00000004' "
0	(0)	BITSTRING	0	ISGENQRSN_NONZERORETURNCODES	"X'00000401' "
0	(0)	BITSTRING	0	ISGENQRSN_REQUESTNOTPROCESSED	"X'00000402' "
0	(0)	BITSTRING	0	ISGENQRSN_ECBWILLBEPOSTED	"X'00000403' "
0	(0)	BITSTRING	0	ISGENQRSN_NOTIMMEDIATELYAVAILABLE	"X'00000404' "
0	(0)	BITSTRING	0	ISGENQRSN_TASKOWNSEXCLUSIVE	"X'00000405' "
0	(0)	BITSTRING	0	ISGENQRSN_TASKOWNSSHARED	"X'00000406' "
0	(0)	BITSTRING	0	ISGENQRSN_TASKWAITING	"X'00000407' "
0	(0)	BITSTRING	0	ISGENQRSN_OTHERSHAREDOWNERS	"X'00000409' "
0	(0)	BITSTRING	0	ISGENQRSN_TASKDOESNOTOWN	"X'0000040A' "
0	(0)	BITSTRING	0	ISGENQRSN_TASKSUSPENDEDFORRESOURCE	"X'0000040B' "
0	(0)	BITSTRING	0	ISGENQRSN_UNPROTECTEDQNAME	"X'0000040D' "
0	(0)	BITSTRING	0	ISGENQRSN_UNPROTECTEDEXITQNAME	"X'0000040E' "
0	(0)	BITSTRING	0	ISGENQRSN_ECBATLEASTONEREQUESTFAILED	

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'0000040F' "
		.... 1...		ISGENQRC_PARMERROR	"X'00000008' "
0	(0)	BITSTRING	0	ISGENQRSN_BADPLISTADDRESS	"X'00000801' "
0	(0)	BITSTRING	0	ISGENQRSN_BADPLISTALET	"X'00000802' "
0	(0)	BITSTRING	0	ISGENQRSN_BADPLISTVERSION	"X'00000803' "
0	(0)	BITSTRING	0	ISGENQRSN_RESERVEDFIELDNOTNULL	"X'00000804' "
0	(0)	BITSTRING	0	ISGENQRSN_MUTUALLYEXCLUSIVE	"X'00000805' "
0	(0)	BITSTRING	0	ISGENQRSN_BADREQUEST	"X'00000806' "
0	(0)	BITSTRING	0	ISGENQRSN_BADCONTENTIONACT	"X'00000807' "
0	(0)	BITSTRING	0	ISGENQRSN_BADOWNINGTTOKEN	"X'00000808' "
0	(0)	BITSTRING	0	ISGENQRSN_BADANSAREAADDRESS	"X'00000809' "
0	(0)	BITSTRING	0	ISGENQRSN_BADANSAREALET	"X'0000080A' "
0	(0)	BITSTRING	0	ISGENQRSN_ANSLENTTOOSMALL	"X'0000080B' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRNAMEADDRESS	"X'0000080C' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRNAMEALET	"X'0000080D' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRNAMELEN	"X'0000080E' "
0	(0)	BITSTRING	0	ISGENQRSN_BADSCOPE	"X'0000080F' "
0	(0)	BITSTRING	0	ISGENQRSN_BADUCB@	"X'00000810' "
0	(0)	BITSTRING	0	ISGENQRSN_BADCOND	"X'00000811' "
0	(0)	BITSTRING	0	ISGENQRSN_BADSYNCHRES	"X'00000812' "
0	(0)	BITSTRING	0	ISGENQRSN_BADENQTOKENADDRESS	"X'00000813' "
0	(0)	BITSTRING	0	ISGENQRSN_BADENQTOKENALET	"X'00000814' "
0	(0)	BITSTRING	0	ISGENQRSN_BADENQTOKEN	"X'00000815' "
0	(0)	BITSTRING	0	ISGENQRSN_BADNUMRES	"X'00000816' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRESTABLEADDRESS	"X'00000817' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRESTABLEALET	"X'00000818' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRESTABLE	"X'00000819' "
0	(0)	BITSTRING	0	ISGENQRSN_BADENQTOKENTBLADDRESS	"X'0000081A' "
0	(0)	BITSTRING	0	ISGENQRSN_BADENQTOKENTBLALET	"X'0000081B' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRETURNTABLEADDRESS	"X'0000081C' "
0	(0)	BITSTRING	0	ISGENQRSN_BADRETURNTABLEALET	"X'0000081D' "
0	(0)	BITSTRING	0	ISGENQRSN_NOTAUTHORIZEDFORQNAME	"X'0000081E' "
0	(0)	BITSTRING	0	ISGENQRSN_NOTAUTHORIZEDFOREXITQNAME	"X'0000081F' "
0	(0)	BITSTRING	0	ISGENQRSN_NOTAUTHORIZEDFORECB	

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'00000820'"
0	(0)	BITSTRING	0	ISGENQRSN_NOTAUTHORIZEDFOROWNINGTTOKEN	
					"X'00000821'"
0	(0)	BITSTRING	0	ISGENQRSN_BADUSERDATAADDRESS	
					"X'00000822'"
0	(0)	BITSTRING	0	ISGENQRSN_BADUSERDATAALET	"X'00000823'"
0	(0)	BITSTRING	0	ISGENQRSN_DEVICENOTALLOCATED	
					"X'00000824'"
0	(0)	BITSTRING	0	ISGENQRSN_EXITDEVICENOTALLOCATED	
					"X'00000825'"
0	(0)	BITSTRING	0	ISGENQRSN_BADCONTROL	"X'00000826'"
0	(0)	BITSTRING	0	ISGENQRSN_BAEXITUCB@	"X'00000827'"
0	(0)	BITSTRING	0	ISGENQRSN_NOTAUTHORIZEDFORENQMAX	
					"X'00000828'"
		.... 11..		ISGENQRC_ENVERROR	"X'0000000C'"
0	(0)	BITSTRING	0	ISGENQRSN_REQUESTLIMITEXCEEDED	
					"X'00000C01'"
0	(0)	BITSTRING	0	ISGENQRSN_ABENDINEXIT	"X'00000C05'"
0	(0)	BITSTRING	0	ISGENQRSN_TASKENDING	"X'00000C0A'"
0	(0)	BITSTRING	0	ISGENQRSN_FRRHELD	"X'00000C0B'"
0	(0)	BITSTRING	0	ISGENQRSN_LOCKHELD	"X'00000C0C'"
0	(0)	BITSTRING	0	ISGENQRSN_SRBMODE	"X'00000C0D'"
0	(0)	BITSTRING	0	ISGENQRSN_NOTENABLED	"X'00000C0E'"
0	(0)	BITSTRING	0	ISGENQRSN_MASIDTARGET	"X'00000C0F'"
0	(0)	BITSTRING	0	ISGENQRSN_UNSUPPORTEDMODE	"X'00000C10'"
0	(0)	BITSTRING	0	ISGENQRSN_MASIDNOTSUPPORTED	
					"X'00000C11'"
		...1 ....		ISGENQRC_COMPERROR	"X'00000010'"
0	(0)	BITSTRING	0	ISGENQRSN_CANNOTOBTAINHOMESTORAGE	
					"X'00001002'"
0	(0)	BITSTRING	0	ISGENQRSN_CANNOTOBTAINCOMMONSTORAGE	
					"X'00001003'"
0	(0)	BITSTRING	0	ISGENQRSN_CANNOTOBTAINPRIMARYALET	
					"X'00001004'"
0	(0)	BITSTRING	0	ISGENQRSN_SYNCHRESFLUSHFAILED	
					"X'00001006'"
0	(0)	BITSTRING	0	ISGENQRSN_RESERVESTARTFAILED	
					"X'00001007'"
0	(0)	BITSTRING	0	ISGENQRSN_RESERVECOUNTOVERFLOW	
					"X'00001008'"
0	(0)	BITSTRING	0	ISGENQRSN_CANNOTOBTAINDSQE	"X'00001009'"
0	(0)	BITSTRING	0	ISGENQRSN_RESERVEDONEFAILED	
					"X'0000100A'"
0	(0)	BITSTRING	0	ISGENQRSN_CANNOTOBTAINPRIMARYSTORAGE	
					"X'0000100B'"

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
ISGADMIN Return and Reason Codes (Note that the reason codes are of the form "xxxxYYYY" where "xxxx" is used to contain the module id of the failing module. Module ids can be found in ISGYMT or ISGFID) Use ISGRsnCodeMask to remove the module id from the reason codes					
		.... ....		ISGADMINRC_OK	"X'00000000"
		.... .1..		ISGADMINRC_WARN	"X'00000004"
0	(0)	BITSTRING	0	ISGADMINRSN_ENQMAXVALUELOW	"X'00000401"
0	(0)	BITSTRING	0	ISGADMINRSN_RESETEENQMAXIGNORED	"X'00000402"
		.... 1...		ISGADMINRC_PARMERROR	"X'00000008"
0	(0)	BITSTRING	0	ISGADMINRSN_BADPLISTADDRESS	"X'00000801"
0	(0)	BITSTRING	0	ISGADMINRSN_BADPLISTALET	"X'00000802"
0	(0)	BITSTRING	0	ISGADMINRSN_BADPLISTVERSION	"X'00000803"
0	(0)	BITSTRING	0	ISGADMINRSN_RESERVEDFIELDNOTNULL	"X'00000804"
0	(0)	BITSTRING	0	ISGADMINRSN_BADREQUEST	"X'00000805"
0	(0)	BITSTRING	0	ISGADMINRSN_ENQMAXVALUETOLOW	"X'00000806"
0	(0)	BITSTRING	0	ISGADMINRSN_BADMOVINGWAITERADDRESS	"X'00000807"
0	(0)	BITSTRING	0	ISGADMINRSN_BADMOVINGWAITERALET	"X'00000808"
0	(0)	BITSTRING	0	ISGADMINRSN_BADMOVINGWAITER	"X'00000809"
0	(0)	BITSTRING	0	ISGADMINRSN_BADBEFOREREQUESTERADDRESS	"X'0000080A"
0	(0)	BITSTRING	0	ISGADMINRSN_BADBEFOREREQUESTERALET	"X'0000080B"
0	(0)	BITSTRING	0	ISGADMINRSN_BADBEFOREREQUESTER	"X'0000080C"
0	(0)	BITSTRING	0	ISGADMINRSN_SAMEREQUESTER	"X'0000080D"
0	(0)	BITSTRING	0	ISGADMINRSN_INCONSISTENTRESOURCE	"X'0000080E"
0	(0)	BITSTRING	0	ISGADMINRSN_BADSCOPE	"X'0000080F"
0	(0)	BITSTRING	0	ISGADMINRSN_BADCONTROL	"X'00000810"
0	(0)	BITSTRING	0	ISGADMINRSN_CANNOTMOVEOWNER	"X'00000811"
0	(0)	BITSTRING	0	ISGADMINRSN_ALREADYBEFOREREQUESTER	"X'00000812"
0	(0)	BITSTRING	0	ISGADMINRSN_CANNOTMOVEBEFOREOWNER	"X'00000813"
0	(0)	BITSTRING	0	ISGADMINRSN_CANNOTMOVEAFTERSHAREDOWNER	"X'00000814"

Table 1032. Structure (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	BITSTRING	0	ISGADMINRSN_CANNOTMAKEANOTHEROWNER	"X'00000815' "
0	(0)	BITSTRING	0	ISGADMINRSN_ALREADYLASTREQUESTER	"X'00000816' "
0	(0)	BITSTRING	0	ISGADMINRSN_CANNOTMOVEMASIDUSER	"X'00000817' "
0	(0)	BITSTRING	0	ISGADMINRSN_MASIDCONTROLCONFLICT	"X'00000818' "
		.... 11..		ISGADMINRC_ENVERROR	"X'0000000C' "
0	(0)	BITSTRING	0	ISGADMINRSN_NOTAUTHORIZED	"X'00000C01' "
0	(0)	BITSTRING	0	ISGADMINRSN_FRRHELD	"X'00000C02' "
0	(0)	BITSTRING	0	ISGADMINRSN_LOCKHELD	"X'00000C03' "
0	(0)	BITSTRING	0	ISGADMINRSN_SRBMODE	"X'00000C04' "
0	(0)	BITSTRING	0	ISGADMINRSN_NOTENABLED	"X'00000C05' "
0	(0)	BITSTRING	0	ISGADMINRSN_QUEUEDAMAGE1	"X'00000C06' "
0	(0)	BITSTRING	0	ISGADMINRSN_QUEUEDAMAGE2	"X'00000C07' "
		...1 ....		ISGADMINRC_COMPERROR	"X'00000010' "
Declares for ENQMAXx values in GRSCNFxx, SETGRS, and ISGADMIN: These are smallest possible maximums for authorized and unauthorized requesters, to help prevent the installation from inadvertently causing excessive ABEND538s.					
0	(0)	X'3D090'	0	ENQMAXA_SMALLESTMAXIMUM	"250000"
0	(0)	X'4000'	0	ENQMAXU_SMALLESTMAXIMUM	"16384"

Table 1033. Cross Reference for ISGYCON

Name	Offset	Hex Tag
DEQ_KRCRESOURCENOTOWNED	0	8
DEQ_KRCRESOURCEPREVIOUSREQDOESNOTOWN	0	4
DEQ_KRCRESOURCERELEASED	0	0
ENQ_KCHNGRCENVIRONMENTALERROR	0	18
ENQ_KCHNGRCRESOURCECHANGED	0	0
ENQ_KCHNGRCRESOURCENOTCHANGED	0	4
ENQ_KCHNGRCRESOURCENOTOWNED	0	14
ENQ_KCHNGRCRESOURCENOTREQD	0	8
ENQ_KECBRCENVIRONMENTALERROR	0	18
ENQ_KECBRCPREVIOUSREQALREADYOWNS	0	8
ENQ_KECBRCPREVIOUSREQDOESNOTOWN	0	14
ENQ_KECBRCRESOURCEOWNED	0	0
ENQ_KECBRCWAITTOOWNEXCLUSIVE	0	24
ENQ_KECBRCWILLBEPOSTED	0	4
ENQ_KHAVERCCALLERCANNOTUSE	0	28
ENQ_KHAVERCENVIRONMENTALERROR	0	18
ENQ_KHAVERCMATCHINGTASKOWNS	0	20

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ENQ_KHAVERCMATCHINGTASKVIOLATION	0	44
ENQ_KHAVERCPREVIOUSREQALREADYOWNS	0	8
ENQ_KHAVERCPREVIOUSREQDOESNOTOWN	0	14
ENQ_KHAVERCRESOURCEOWNED	0	0
ENQ_KTESTRCMATCHINGTASKOWNS	0	20
ENQ_KTESTRCPREVIOUSREQALREADYOWNS	0	8
ENQ_KTESTRCPREVIOUSREQDOESNOTOWN	0	14
ENQ_KTESTRCRESOURCEISAVAILABLE	0	0
ENQ_KTESTRCRESOURCEISNOTAVAILABLE	0	4
ENQ_KUSERCENVIRONMENTALERROR	0	18
ENQ_KUSERCPREVIOUSREQALREADYOWNS	0	8
ENQ_KUSERCPREVIOUSREQDOESNOTOWN	0	14
ENQ_KUSERCRESOURCENOTOWNED	0	4
ENQ_KUSERCRESOURCEOWNED	0	0
ENQMAXA_SMALLESTMAXIMUM	0	3D090
ENQMAXU_SMALLESTMAXIMUM	0	4000
ISGADMINRC_COMPERROR	0	10
ISGADMINRC_ENVERROR	0	C
ISGADMINRC_OK	0	0
ISGADMINRC_PARMERROR	0	8
ISGADMINRC_WARN	0	4
ISGADMINRSN_ALREADYBEFOREREQUESTER	0	812
ISGADMINRSN_ALREADYLASTREQUESTER	0	816
ISGADMINRSN_BADBEFOREREQUESTER	0	80C
ISGADMINRSN_BADBEFOREREQUESTERADDRESS	0	80A
ISGADMINRSN_BADBEFOREREQUESTERALET	0	80B
ISGADMINRSN_BADCONTROL	0	810
ISGADMINRSN_BADMOVINGWAITER	0	809
ISGADMINRSN_BADMOVINGWAITERADDRESS	0	807
ISGADMINRSN_BADMOVINGWAITERALET	0	808
ISGADMINRSN_BADPLISTADDRESS	0	801
ISGADMINRSN_BADPLISTALET	0	802
ISGADMINRSN_BADPLISTVERSION	0	803
ISGADMINRSN_BADREQUEST	0	805
ISGADMINRSN_BADSCOPE	0	80F
ISGADMINRSN_CANNOTMAKEANOTHEROWNER	0	815
ISGADMINRSN_CANNOTMOVEAFTERSHAREDOWNER	0	814
ISGADMINRSN_CANNOTMOVEBEFOREOWNER	0	813
ISGADMINRSN_CANNOTMOVEMASIDUSER	0	817

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGADMINRSN_CANNOTMOVEOWNER	0	811
ISGADMINRSN_ENQMAXVALUELOW	0	401
ISGADMINRSN_ENQMAXVALUETOLOW	0	806
ISGADMINRSN_FRRHELD	0	C02
ISGADMINRSN_INCONSISTENTRESOURCE	0	80E
ISGADMINRSN_LOCKHELD	0	C03
ISGADMINRSN_MASIDCONTROLCONFLICT	0	818
ISGADMINRSN_NOTAUTHORIZED	0	C01
ISGADMINRSN_NOTENABLED	0	C05
ISGADMINRSN_QUEUEDAMAGE1	0	C06
ISGADMINRSN_QUEUEDAMAGE2	0	C07
ISGADMINRSN_RESERVEDFIELDNOTNULL	0	804
ISGADMINRSN_RESETEENQMAXIGNORED	0	402
ISGADMINRSN_SAMEREQUESTER	0	80D
ISGADMINRSN_SRBMODE	0	C04
ISGENQRC_COMPERROR	0	10
ISGENQRC_ENVERROR	0	C
ISGENQRC_OK	0	0
ISGENQRC_PARMERROR	0	8
ISGENQRC_WARN	0	4
ISGENQRSN_ABENDINEXIT	0	C05
ISGENQRSN_ANSLENTTOOSMALL	0	80B
ISGENQRSN_BADANSAREAADDRESS	0	809
ISGENQRSN_BADANSAREALET	0	80A
ISGENQRSN_BADCOND	0	811
ISGENQRSN_BADCONTENTIONACT	0	807
ISGENQRSN_BADCONTROL	0	826
ISGENQRSN_BADENQTOKEN	0	815
ISGENQRSN_BADENQTOKENADDRESS	0	813
ISGENQRSN_BADENQTOKENALET	0	814
ISGENQRSN_BADENQTOKENTBLADDRESS	0	81A
ISGENQRSN_BADENQTOKENTBLALET	0	81B
ISGENQRSN_BADEXITUCB@	0	827
ISGENQRSN_BADNUMRES	0	816
ISGENQRSN_BADOWNINGTTOKEN	0	808
ISGENQRSN_BADPLISTADDRESS	0	801
ISGENQRSN_BADPLISTALET	0	802
ISGENQRSN_BADPLISTVERSION	0	803
ISGENQRSN_BADREQUEST	0	806



Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGENQRSN_BADRESTABLE	0	819
ISGENQRSN_BADRESTABLEADDRESS	0	817
ISGENQRSN_BADRESTABLEALET	0	818
ISGENQRSN_BADRETURNTABLEADDRESS	0	81C
ISGENQRSN_BADRETURNTABLEALET	0	81D
ISGENQRSN_BADRNAMEADDRESS	0	80C
ISGENQRSN_BADRNAMEALET	0	80D
ISGENQRSN_BADRNAMELEN	0	80E
ISGENQRSN_BADSCOPE	0	80F
ISGENQRSN_BADSYNCHRES	0	812
ISGENQRSN_BADUCB@	0	810
ISGENQRSN_BADUSERDATAADDRESS	0	822
ISGENQRSN_BADUSERDATAALET	0	823
ISGENQRSN_CANNOTOBTAINCOMMONSTORAGE	0	1003
ISGENQRSN_CANNOTOBTAINDSQE	0	1009
ISGENQRSN_CANNOTOBTAINHOMESTORAGE	0	1002
ISGENQRSN_CANNOTOBTAINPRIMARYALET	0	1004
ISGENQRSN_CANNOTOBTAINPRIMARYSTORAGE	0	100B
ISGENQRSN_DEVICENOTALLOCATED	0	824
ISGENQRSN_ECBATLEASTONEREQUESTFAILED	0	40F
ISGENQRSN_ECBWILLBEPOSTED	0	403
ISGENQRSN_EXITDEVICENOTALLOCATED	0	825
ISGENQRSN_FRRHELD	0	C0B
ISGENQRSN_LOCKHELD	0	C0C
ISGENQRSN_MASIDNOTSUPPORTED	0	C11
ISGENQRSN_MASIDTARGET	0	C0F
ISGENQRSN_MUTUALLYEXCLUSIVE	0	805
ISGENQRSN_NONZERORETURNCODES	0	401
ISGENQRSN_NOTAUTHORIZEDFORECB	0	820
ISGENQRSN_NOTAUTHORIZEDFORENQMAX	0	828
ISGENQRSN_NOTAUTHORIZEDFOREXITQNAME	0	81F
ISGENQRSN_NOTAUTHORIZEDFOROWNINGTTOKEN	0	821
ISGENQRSN_NOTAUTHORIZEDFORQNAME	0	81E
ISGENQRSN_NOTENABLED	0	C0E
ISGENQRSN_NOTIMMEDIATELYAVAILABLE	0	404
ISGENQRSN_OTHERSHAREDOWNERS	0	409
ISGENQRSN_REQUESTLIMITEXCEEDED	0	C01
ISGENQRSN_REQUESTNOTPROCESSED	0	402
ISGENQRSN_RESERVECOUNTOVERFLOW	0	1008

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGENQRSN_RESERVEDFIELDNOTNULL	0	804
ISGENQRSN_RESERVEDONEFAILED	0	100A
ISGENQRSN_RESERVESTARTFAILED	0	1007
ISGENQRSN_SRBMODE	0	C0D
ISGENQRSN_SYNCHRESFLUSHFAILED	0	1006
ISGENQRSN_TASKDOESNOTOWN	0	40A
ISGENQRSN_TASKENDING	0	C0A
ISGENQRSN_TASKOWNSEXCLUSIVE	0	405
ISGENQRSN_TASKOWNSSHARED	0	406
ISGENQRSN_TASKSUSPENDEDFORRESOURCE	0	40B
ISGENQRSN_TASKWAITING	0	407
ISGENQRSN_UNPROTECTEDEXITQNAME	0	40E
ISGENQRSN_UNPROTECTEDQNAME	0	40D
ISGENQRSN_UNSUPPORTEDMODE	0	C10
ISGQUERYRC_COMPERROR	0	10
ISGQUERYRC_ENVERROR	0	C
ISGQUERYRC_OK	0	0
ISGQUERYRC_PARMERROR	0	8
ISGQUERYRC_WARN	0	4
ISGQUERYRSN_ANSLENTTOOSMALL	0	81A
ISGQUERYRSN_ANSWERAREAFULL	0	405
ISGQUERYRSN_BADANALYZE	0	827
ISGQUERYRSN_BADANSAREAADDRESS	0	80D
ISGQUERYRSN_BADANSAREALET	0	80E
ISGQUERYRSN_BADANSDETAIL	0	820
ISGQUERYRSN_BADASID	0	822
ISGQUERYRSN_BADENQTOKENADDRESS	0	814
ISGQUERYRSN_BADENQTOKENALET	0	815
ISGQUERYRSN_BADGATHERFROM	0	812
ISGQUERYRSN_BADPLISTADDRESS	0	801
ISGQUERYRSN_BADPLISTALET	0	802
ISGQUERYRSN_BADPLISTVERSION	0	803
ISGQUERYRSN_BADQNAMEMATCH	0	816
ISGQUERYRSN_BADREQINFO	0	805
ISGQUERYRSN_BADREQUESTERLIMIT	0	81E
ISGQUERYRSN_BADRESUMETOKENADDRESS	0	810
ISGQUERYRSN_BADRESUMETOKENALET	0	811
ISGQUERYRSN_BADRNAMEADDRESS	0	807
ISGQUERYRSN_BADRNAMEALET	0	808

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGQUERYRSN_BADRNAMELEN	0	809
ISGQUERYRSN_BADRNAMEMATCH	0	817
ISGQUERYRSN_BADRNL	0	806
ISGQUERYRSN_BADRNLADDRESS	0	80A
ISGQUERYRSN_BADRNLAELET	0	80B
ISGQUERYRSN_BADSCANACTION	0	80F
ISGQUERYRSN_BADSCOPE	0	818
ISGQUERYRSN_BADSEARCH	0	813
ISGQUERYRSN_BADSERIALIZEBY	0	819
ISGQUERYRSN_BADUSERDATAADDRESS	0	823
ISGQUERYRSN_BADUSERDATAALET	0	824
ISGQUERYRSN_BADUSERDATALEN	0	825
ISGQUERYRSN_BADUSERDATAMATCH	0	826
ISGQUERYRSN_CANNOTOBTAINLOCKS	0	C04
ISGQUERYRSN_COMPLEXMIGRATING	0	C03
ISGQUERYRSN_ENQTOKENNOTVALID	0	81D
ISGQUERYRSN_FRRHELD	0	C09
ISGQUERYRSN_GRSNONE	0	406
ISGQUERYRSN_GRSRNLEXCLUDE	0	403
ISGQUERYRSN_INSUFFICIENTSTORAGE	0	C08
ISGQUERYRSN_LOCKHELD	0	C05
ISGQUERYRSN_MAXCONCURRENTREQUESTS	0	C06
ISGQUERYRSN_MUTUALLYEXCLUSIVE	0	80C
ISGQUERYRSN_NOMATCHINGRESOURCES	0	404
ISGQUERYRSN_NOMATCHINGRNLE	0	401
ISGQUERYRSN_NOPOSSIBLEMATCH	0	81F
ISGQUERYRSN_NOTAUTHTOLATCHECA	0	828
ISGQUERYRSN_NOTAUTHTOQSCAN	0	821
ISGQUERYRSN_NOTENABLED	0	C02
ISGQUERYRSN_RESERVEDFIELDNOTNULL	0	804
ISGQUERYRSN_RESUMETOKENNOTVALID	0	81B
ISGQUERYRSN_RESUMETOKENTOOOLD	0	81C
ISGQUERYRSN_RINGRESUMEINSTAR	0	C07
ISGQUERYRSN_RNLCHANGEINPROGRESS	0	402
ISGQUERYRSN_SRBMODE	0	C01
ISGRSNCODEBADFORMATVALUE	0	20
ISGRSNCODEBADFORMATWORD	0	1F
ISGRSNCODEBADPELPREFIX	0	22
ISGRSNCODEBADQNAME	0	6

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGRSNCODEBADRNAME	0	7
ISGRSNCODEBADTCBSTORAGE	0	D
ISGRSNCODEBADUCBADDRESS	0	9
ISGRSNCODEBADUCBPTR	0	8
ISGRSNCODEBADUSERPEL	0	5
ISGRSNCODECOULDNOTOBTAINCOMMONSTORAGE	0	5
ISGRSNCODECOULDNOTOBTAINGRSALET	0	8
ISGRSNCODECOULDNOTOBTAINHOMESTORAGE	0	4
ISGRSNCODECOULDNOTOBTAINPRIMARYALET	0	6
ISGRSNCODECOULDNOTOBTAINPRIMARYSTORAGE	0	9
ISGRSNCODECOULDNOTQUERYLSE	0	100
ISGRSNCODECOULDNOTSUSPENDFORRNLCCHANGE	0	7
ISGRSNCODECOULDNOTUPDATELSE	0	200
ISGRSNCODECSVDYNEXABEND	0	FD
ISGRSNCODEDEQREQSPECIFIEDPELSAVE	0	16
ISGRSNCODEDIRENQANDUCBSPECIFIED	0	1B
ISGRSNCODEDIRENQNOECBANDINVALIDRET	0	1C
ISGRSNCODEDIRENQNOMATCHINGTCB	0	1A
ISGRSNCODEECBREQWITHBADRET	0	1D
ISGRSNCODEECBREQWITHSTEPMUSTCOMPLETE	0	1E
ISGRSNCODEENQREQSPECIFIEDGENERIC	0	19
ISGRSNCODEEXITABEND	0	FE
ISGRSNCODEGENERALFAILURE	0	0
ISGRSNCODEGENERICREQWITHINVALIDRET	0	18
ISGRSNCODEGLOBALRESOURCECOUNTTOVERRUN	0	B
ISGRSNCODEINVALIDFORMATWORD	0	C
ISGRSNCODEINVALIDMASIDRNAMELENGTH	0	10
ISGRSNCODEINVALIDRETSPESIFIED	0	17
ISGRSNCODEINVALIDUCB	0	3
ISGRSNCODEINVALIDUCBBYEXIT	0	4
ISGRSNCODEIOSVDSTFFFAILURE	0	1
ISGRSNCODELOCALRESOURCECOUNTTOVERRUN	0	A
ISGRSNCODEMASIDREQINVALIDRET	0	11
ISGRSNCODEMASIDREQSPECIFIEDTCBORPELSTPMC	0	F
ISGRSNCODEMASIDREQSUBTASKOFTARGET	0	13
ISGRSNCODEMASIDREQWITHNOTCB	0	12
ISGRSNCODEMASK	0	FFFF
ISGRSNCODENOTATCB	0	E
ISGRSNCODEOECBREQWITHBADRET	0	1D

Table 1033. Cross Reference for ISGYCON (continued)

Name	Offset	Hex Tag
ISGRSNCODEOECBREQWITHSTEPMUSTCOMPLETE	0	1E
ISGRSNCODEPARMLISTALETNOTZERO	0	21
ISGRSNCODEPARMLISTALTEREDWHILEPROCESSING	0	1
ISGRSNCODEREQSETOBSOLETEFLAG	0	14
ISGRSNCODERESERVEDONEFAILURE	0	3
ISGRSNCODERESERVESTARTFAILURE	0	2
ISGRSNCODERNLNOANDUCBSPECIFIED	0	2
ISGRSNCODESMCINXMEM	0	23
ISGRSNCODESRBMODE	0	24
ISGRSNCODETCBSPECIFIEDDANDPELSTPMC	0	15
ISGRSNCODEUCBNOTALLOCATED	0	3
ISGRSNCODEUCBNOTALLOCATEDBYEXIT	0	4
ISGRSNCODEUCBOVERFLOW	0	FF
ISGRSNCODEUNAUTHECBREQUEST	0	8
ISGRSNCODEUNAUTHGENERICREQUEST	0	7
ISGRSNCODEUNAUTHMASIDREQ	0	5
ISGRSNCODEUNAUTHNQDQOFAUTHRESOURCE	0	1
ISGRSNCODEUNAUTHNQDQOFAUTHRESOURCEBYEXIT	0	2
ISGRSNCODEUNAUTHREQWITHTCBORPELSTPMC	0	6

## ISGYDSPX information

### ISGYDSPX programming interface information

ISGYDSPX is a programming interface.

### ISGYDSPX heading information

<b>Common name:</b>	Display GRS Resource Exit Parameter List
<b>Macro ID:</b>	ISGYDSPX
<b>DSECT name:</b>	DSPX
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	DSPX Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 229 in the address space where ISGCDSP runs Key: 0 Residency: Above 16M line
<b>Size:</b>	DSPX -- X'0070' bytes
<b>Created by:</b>	ISGCDSP
<b>Pointed to by:</b>	R1 points to the DSPX on entry to the exit routine

**Serialization:** N/A

**Function:** The DSPX parameter list describes a resource which is going to be reported in a DISPLAY GRS command. An exit routine can add information regarding the meaning of the resource. When setting DspX\_ResourceInformation, the exit routine should identify the application/subsystem providing the information by setting the DspX\_ResourceIdentifier value.

## ISGYDSPX mapping

Table 1034. Structure DSPX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DSPX	
0	(0)	CHARACTER	4	DSPX_ID	Eyecatcher
4	(4)	BITSTRING	1	DSPX_VERSION	DspX version
5	(5)	CHARACTER	2		Reserved
7	(7)	BITSTRING	1	DSPX_RFLGS(0)	Resource description flags
		1... ....		DSPX_SYS	"X'80'" SCOPE=SYSTEM
		.1... ....		DSPX_SYSS	"X'40'" SCOPE=SYSTEMS
8	(8)	CHARACTER	8	DSPX_QNAME	Resource QName
16	(10)	SIGNED	2	DSPX_RNAMEL	RName length
18	(12)	CHARACTER	2		Reserved
20	(14)	ADDRESS	4	DSPX_RNAME@	Pointer to RName
24	(18)	CHARACTER	16	DSPX_RESOURCEIDENTIFIER	Identification of application/ subsystem setting the resource information
40	(28)	CHARACTER	70	DSPX_RESOURCEINFORMATION	Additional information to describe resource
110	(6E)	CHARACTER	2		Reserved
112	(70)	CHARACTER	1	DSPX_END(0)	

### DSPX Constants

112	(70)	X'E2D7E7'	0	DSPX_KID	"C'DSPX'" Used to identify control block
112	(70)	X'1'	0	DSPX_KVERSION#1	"1" Version constant - HBB7705
112	(70)	X'1'	0	DSPX_KCURRENTVERSION	"1" Current version
112	(70)	X'170'	0	DSPX_KLENGTH	"368" Maximum of length DspX parameter list
112	(70)	X'70'	0	DSPX_LEN	"*-DSPX"

Table 1035. Cross Reference for ISGYDSPX

Name	Offset	Hex Tag
DSPX	0	
DSPX_END	70	
DSPX_ID	0	
DSPX_KCURRENTVERSION	70	1
DSPX_KID	70	E2D7E7
DSPX_KLENGTH	70	170
DSPX_KVERSION#1	70	1

Table 1035. Cross Reference for ISGYDSPX (continued)

Name	Offset	Hex Tag
DSPX_LEN	70	70
DSPX_QNAME	8	
DSPX_RESOURCEIDENTIFIER	18	
DSPX_RESOURCEINFORMATION	28	
DSPX_RFLGS	7	
DSPX_RNAME@	14	
DSPX_RNAMEL	10	
DSPX_SYS	7	80
DSPX_SYSS	7	40
DSPX_VERSION	4	

## ISGYELF information

### ISGYELF programming interface information

ISGYELF is a programming interface.

### ISGYELF heading information

<b>Common name:</b>	ENF Listener Filter for ENF 51
<b>Macro ID:</b>	ISGYELF
<b>DSECT name:</b>	ISGYELF
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	ISGYELF Offset: 0 Length: 8
<b>Storage attributes:</b>	Subpool: Determined by ENFREQ ACTION=LISTEN invoker or not applicable (copied above the bar) Key: Determined by ENFREQ ACTION=LISTEN invoker or 0 Residency: Determined by ENFREQ ACTION=LISTEN invoker or above the bar in the GRS GRQA
<b>Size:</b>	LENGTH(ISGYELF) ISGYELF -- X'0128' bytes
<b>Created by:</b>	ENFREQ invoker and ISGGELF
<b>Pointed to by:</b>	ENFREQ parameter list
<b>Serialization:</b>	N/A
<b>Function:</b>	Provides additional filtering options for registered ENF 51 listeners.

## ISGYELF mapping

Table 1036. Structure ISGYELF

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYELF	
0	(0)	CHARACTER	16	ISGYELF_HEADER(0)	+00x----- -----
0	(0)	CHARACTER	8	ISGYELF_ID	Control Block ID
8	(8)	SIGNED	4	ISGYELF_LENGTH	Control Block length
12	(C)	BITSTRING	1	ISGYELF_VERSION	Control Block version
13	(D)	CHARACTER	3	ISGYELF_RSVD	Reserved +10x----- -----
16	(10)	SIGNED	4	ISGYELF_REASONCODE	Event 51 specific reason code. This is valid when the ENFREQ return code is 68x.
20	(14)	CHARACTER	8	ISGYELF_OWNINGSYSNAME	Owning system name filter. At least one owner of the resource must be from the specified system. Note that in the case of many shared owners where the ENF 51 signal does not have all requester information, this filter is ignored. Binary zeroes denote that this filter is unused.
28	(1C)	SIGNED	2	ISGYELF_OWNINGASID	Owning asid filter. Only applicable when ISGYELF_OwningSysname is used. See ISGYELF_Owning Sysname for notes on multiple shared owners. A value of zero denotes that this filter is unused.
30	(1E)	CHARACTER	2	ISGYELF_FLAGS(0)	
		1... ..		ISGYELF_QNAMEPATTERN	"X'80'" Only valid when ISGYELF_QName is non-zero. When On, the Elf51QName filter is a pattern. When Off, the ISGYELF_QName is specific.
		.1.. ..		ISGYELF_RNAMEPATTERN	"X'40'" Only valid when ISGYELF_RName is non-zero. When On, the ElfR1RName filter is a pattern. When Off, the ISGYELF_RName is specific. +20x----- -----
32	(20)	CHARACTER	8	ISGYELF_QNAME	Qname filter. See ISGYELF_QNamePattern. Binary zeroes denote that this filter is unused.
40	(28)	CHARACTER	255	ISGYELF_RNAME	Rname filter. See ISGYELF_RNamePattern. Binary zeroes denote that this filter is unused.
295	(127)	BITSTRING	1	ISGYELF_RNAMELEN	Rname length filter. This is not applicable when ISGYELF_Rname is binary zeroes. Otherwise it is required. +128x----- -----
296	(128)	CHARACTER	1	ISGYELF_END(0)	
Constants					
296	(128)	X'E2C7E8'	0	ISGYELF_KID_0T03	"C'ISGY'" This is the first 4-byte segment of an 8-byte constant. Eye-catcher
296	(128)	X'D3C640'	0	ISGYELF_KID_4T07	"C'ELF '" This is the second 4-byte segment of an 8-byte constant. Eye-catcher
296	(128)	X'128'	0	ISGYELF_KLENGTH	"296"
296	(128)	X'1'	0	ISGYELF_KVERSION#1	"1" Version 1 - Initial version



Table 1036. Structure ISGYELF (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
296	(128)	X'1'	0	ISGYELF_KMAXVERSION	"1"
296	(128)	X'6801'	0	ISGYELF_KRSNBADID	"26625" Bad control block Id
296	(128)	X'6802'	0	ISGYELF_KRSNBADLENGTH	"26626" Bad length
296	(128)	X'6803'	0	ISGYELF_KRSNBADVERSION	"26627" Bad version
296	(128)	X'6804'	0	ISGYELF_KRSNRESERVEDNONZERO	"26628" One or more reserved fields non-zero
296	(128)	X'6805'	0	ISGYELF_KRSNMISSINGSYSNAME	"26629" Asid specified but sysname is binary zeroes
296	(128)	X'6806'	0	ISGYELF_KRSNMISSINGQNAME	"26630" Qname pattern specified but qname filter is binary zeroes
296	(128)	X'6807'	0	ISGYELF_KRSNMISSINGRNAME	"26631" Rname pattern specified but rname filter is binary zeroes
296	(128)	X'6808'	0	ISGYELF_KRSNMISSINGRNAMELEN	"26632" Rname filter specified but RnameLen is binary zeroes
296	(128)	X'128'	0	ISGYELF_LEN	"*-ISGYELF"

Table 1037. Cross Reference for ISGYELF

Name	Offset	Hex Tag
ISGYELF	0	
ISGYELF_END	128	
ISGYELF_FLAGS	1E	
ISGYELF_HEADER	0	
ISGYELF_ID	0	
ISGYELF_KID_0T03	128	E2C7E8
ISGYELF_KID_4T07	128	D3C640
ISGYELF_KLENGTH	128	128
ISGYELF_KMAXVERSION	128	1
ISGYELF_KRSNBADID	128	6801
ISGYELF_KRSNBADLENGTH	128	6802
ISGYELF_KRSNBADVERSION	128	6803
ISGYELF_KRSNMISSINGQNAME	128	6806
ISGYELF_KRSNMISSINGRNAME	128	6807
ISGYELF_KRSNMISSINGRNAMELEN	128	6808
ISGYELF_KRSNMISSINGSYSNAME	128	6805
ISGYELF_KRSNRESERVEDNONZERO	128	6804
ISGYELF_KVERSION#1	128	1
ISGYELF_LEN	128	128
ISGYELF_LENGTH	8	
ISGYELF_OWNINGASID	1C	
ISGYELF_OWNINGSYSNAME	14	
ISGYELF_QNAME	20	

Table 1037. Cross Reference for ISGYELF (continued)

Name	Offset	Hex Tag
ISGYELF_QNAMEPATTERN	1E	80
ISGYELF_REASONCODE	10	
ISGYELF_RNAME	28	
ISGYELF_RNAMELEN	127	
ISGYELF_RNAMEPATTERN	1E	40
ISGYELF_RSV0D	D	
ISGYELF_VERSION	C	

## ISGYENQ information

### ISGYENQ programming interface information

ISGYENQ is a programming interface.

### ISGYENQ heading information

<b>Common name:</b>	ISGENQ table and constant declares
<b>Macro ID:</b>	ISGYENQ
<b>DSECT name:</b>	ISGYENQRes ISGYENQToken ISGYENQReturn ISGYENQAA
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	NONE
<b>Storage attributes:</b>	Subpool: User-supplied Key: User-supplied Residency: User-supplied
<b>Size:</b>	Variable. Table size per request: ISGYENQRES -- X'0020' bytes ISGYENQTOKEN -- X'0020' bytes ISGYENQRETURN -- X'0008' bytes ISGYENQAA -- X'0030' bytes
<b>Created by:</b>	Created by user and passed as parameter on RESTABLE, ENQTOKENTBL, RETURNABLE, and ANSAREA for the ISGENQ macro.
<b>Pointed to by:</b>	RESTABLE_ADDR3164 field in ISGENQ parameter list ENQTOKENTBL_ADDR3164 field in ISGENQ parameter list RETURNABLE_ADDR3164 field in ISGENQ parameter list ANSAREA_ADDR3164 field in ISGENQ parameter list
<b>Serialization:</b>	None required
<b>Function:</b>	ISGYENQRES maps a table that specifies multiple ISGENQ Obtain requests. ISGYENQTOKEN maps a table of ENQTokens specified or returned by ISGENQ. ISGYENQRETURN maps a table of return and reason codes returned by ISGENQ. ISGYENQAA maps the data returned in the answer area by the ISGENQ service when TEST=YES.

## ISGYENQ mapping

Table 1038. Structure ISGYENQRES

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYENQRES	ResTable
0	(0)	CHARACTER	8	ISGYENQRESQNAME	QName of the resource
8	(8)	ADDRESS	8	ISGYENQRESRNAMEADDR(0)	Addr of the RName
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYENQRESRNAMEADDR31	Value of ISGYENQResTableRNameAddr for AMODE 31 callers
16	(10)	SIGNED	4	ISGYENQRESRNAMEALET	ALET of the RName. Ignored for primary ASC mode callers
20	(14)	ADDRESS	4	ISGYENQRESUCB@	Addr of UCB. Zero for a non-reserve request.
24	(18)	BITSTRING	1	ISGYENQRESRNAMELEN	Length of the RName
25	(19)	BITSTRING	1	ISGYENQRESSCOPE	Scope of the resource. Ignored if UCB address is set. One of either ISGYENQ_kSTEP, ISGYENQ_kSYSTEM, or ISGYENQ_kSYSTEMS
26	(1A)	BITSTRING	1	ISGYENQRESCONTROL	Control of request. One of either ISGYENQ_Exclusive or ISGYENQ_Shared.
27	(1B)	BITSTRING	1	ISGYENQRESFLAGS1(0)	
	1... ....			ISGYENQRESRNLEQNO	"X'80'" Set for RNL=NO, zero for RNL=YES. RNL=NO is mutually exclusive with non-zero UCB
	.1.. ....			ISGYENQRESSYNCHRESYES	"X'40'" Set for SYNCHRES=YES. Mutually exclusive with ISGYENQResSynchResNo. If both ISGYENQResSynchResYes and ISGYENQResSynchResNo are zero, then SYNCHRES=SYSTEM.
	..1. ....			ISGYENQRESSYNCHRESNO	"X'20'" Set for SYNCHRES=NO. Mutually exclusive with ISGYENQResSynchResYes.
28	(1C)	CHARACTER	4		Reserved
28	(1C)	X'20'	0	ISGYENQRES_LEN	"*-ISGYENQRES"

Table 1039. Structure ISGYENQTOKEN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYENQTOKEN	ENQToken
0	(0)	CHARACTER	32	ISGYENQTOKENENTRY	ENQToken of request
0	(0)	X'20'	0	ISGYENQTOKEN_LEN	"*-ISGYENQTOKEN"

Table 1040. Structure ISGYENQRETURN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYENQRETURN	Return
0	(0)	SIGNED	4	ISGYENQRETURNRC	Return code of request
4	(4)	SIGNED	4	ISGYENQRETURNRSN	Reason code of request
4	(4)	X'8'	0	ISGYENQRETURN_LEN	"*-ISGYENQRETURN"

Table 1041. Structure ISGYENQAA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYENQAA	AnswerArea
0	(0)	CHARACTER	4	ISGYENQAA_ID	NQAA eyecatcher

Table 1041. Structure ISGYENQAA (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
4	(4)	SIGNED	2	ISGYENQAAVERSION	ISGYENQAA version
6	(6)	BITSTRING	1	ISGYENQAFLAGS1(0)	
		1... ....		ISGYENQAANQXIT	"X'80'" The request was changed by an ISGNQXIT exit.
		.1.. ....		ISGYENQAABATCH	"X'40'" The request was changed by a batch exit.
		..1. ....		ISGYENQAASIRNL	"X'20'" The request scope was promoted by the system inclusion list
		...1 ....		ISGYENQAASERNL	"X'10'" The request scope was demoted by the systems exclusion list
		.... 1...		ISGYENQAARCRNL	"X'08'" The request was converted to only a global ENQ by the reserve conversion list
		.... .1..		ISGYENQAABYPASSRNL	"X'04'" RNL checking was bypassed by an exit
		.... ..1.		ISGYENQAABRSVCONV	"X'02'" The request was converted to only a global ENQ by the batch exit
		.... ...1		ISGYENQAAALTSEREXTENDED	"X'01'" The request would have been managed at the global level by an alternate serialization product
7	(7)	BITSTRING	1	ISGYENQAAFINALSCOPE	Resulting scope after RNL and dynamic exit processing. One of either ISGENQ_STEP, ISGENQ_SYSTEM, or ISGENQ_SYSTEMS from ISGYCON.
8	(8)	ADDRESS	8	ISGYENQAANEXT(0)	Addr of next AnswerArea block or zero if last AA record
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYENQAANEXT31	Value of ISGYENQAANext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYENQAARNAMEADDR(0)	Addr of final RName
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYENQAARNAMEADDR31	Value of ISGYENQAARNameAddr for AMODE 31 callers
24	(18)	CHARACTER	8	ISGYENQAAFINALQNAME	qname after dynamic exit processing
32	(20)	SIGNED	4	ISGYENQAAFINALRNAMELEN	Length of RName after dynamic exit processing
36	(24)	ADDRESS	4	ISGYENQAAFINALUCB@	UCB@ after dynamic exit processing. Note that if ISGYENQAARCRNL or ISGYENQAABRSvConv is set the device was not reserved
40	(28)	CHARACTER	8		Reserved
40	(28)	X'30'	0	ISGYENQAA_LEN	"*-ISGYENQAA"

Table 1042. Cross Reference for ISGYENQ

Name	Offset	Hex Tag
ISGYENQAA	0	
ISGYENQAA_ID	0	
ISGYENQAA_LEN	28	30
ISGYENQAAALTSEREXTENDED	6	1
ISGYENQAABATCH	6	40
ISGYENQAABRSVCONV	6	2
ISGYENQAABYPASSRNL	6	4

Table 1042. Cross Reference for ISGYENQ (continued)

Name	Offset	Hex Tag
ISGYENQAAFINALQNAME	18	
ISGYENQAAFINALRNAMELEN	20	
ISGYENQAAFINALSCOPE	7	
ISGYENQAAFINALUCB@	24	
ISGYENQAAFLAGS1	6	
ISGYENQAANEXT	8	
ISGYENQAANEXT31	C	
ISGYENQAANQXIT	6	80
ISGYENQAARCRNL	6	8
ISGYENQAARNAMEADDR	10	
ISGYENQAARNAMEADDR31	14	
ISGYENQAASERNL	6	10
ISGYENQAASIRNL	6	20
ISGYENQAAVERSION	4	
ISGYENQRES	0	
ISGYENQRES_LEN	1C	20
ISGYENQRESCONTROL	1A	
ISGYENQRESFLAGS1	1B	
ISGYENQRESQNAME	0	
ISGYENQRESRNAMEADDR	8	
ISGYENQRESRNAMEADDR31	C	
ISGYENQRESRNAMEALET	10	
ISGYENQRESRNAMELEN	18	
ISGYENQRESRNLEQNO	1B	80
ISGYENQRESSCOPE	19	
ISGYENQRESSYNCHRESNO	1B	20
ISGYENQRESSYNCHRESYES	1B	40
ISGYENQRESUCB@	14	
ISGYENQRETURN	0	
ISGYENQRETURN_LEN	4	8
ISGYENQRETURNRC	0	
ISGYENQRETURNRSN	4	
ISGYENQTOKEN	0	
ISGYENQTOKEN_LEN	0	20
ISGYENQTOKENENTRY	0	

## ISGYNQBP information

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### ISGYNQBP programming interface information

ISGYNQBP is a programming interface.

### ISGYNQBP heading information

<b>Common name:</b>	GRS ISGNQXITBatch and ISGNQXITBatchCnd Exit Parameter List
<b>Macro ID:</b>	ISGYNQBP
<b>DSECT name:</b>	NQBP
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	NQBP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 229 or 215 Key: 0 Residency: Above the 16M line
<b>Size:</b>	LENGTH(NQBP) NQBP -- X'0060' bytes NQBPRSC_ENTRY -- X'0078' bytes
<b>Created by:</b>	ISGGNX
<b>Pointed to by:</b>	R1 points to the NQBP on entry to the exit routine
<b>Serialization:</b>	N/A

**Function:**

The Batched ENQ/DEQ Parameter list is passed to the ISGNQXITBATCH and ISGNQXITBATCHCND installation exits. These exits have the ability to interrogate and alter ENQ, RESERVE, DEQ or ISGENQ requests.

The parameter list consists of a header (Nqbp) and a queue of resources/entries. Each resource is mapped by NqbpRsc\_Entry. The resources are queued via NqbpRsc\_NextNqbpRsc. A zero value indicates the end of the queue. The number of resources is also indicated via Nqbp\_#Resources.

These exits can only make the following changes to a request:

- 1.Reject the request, requesting GRS to ABEND. See Nqbp\_RF1\_SetABEND below for more information.
- 2.Reject the request, requesting GRS to set a return code and for ISGENQ a reason code. See Nqbp\_RF1\_SetRscRequest, NqbpRsc\_RF1\_SetReturnCode and NqbpRsc\_RF1\_SetReasonCode below for more information.
- 3.Convert a Reserve from a hardware Reserve to a global ENQ. See Nqbp\_RF1\_SetRscRequest and NqbpRsc\_RF1\_ConvertReserve below for more information.

Any other desired changes must be made through the ISGNQXIT or ISGNQXITFast exits.

Generic DEQ needs special consideration. A generic DEQ is denoted by a zero RNAME length (NqbpRsc\_RNameLen =0). It DEQs all resources held by the requester for the given QNAME across all Scopes and RNAMEs. As the scope is irrelevant and not used, all scope fields presented to the exit must be ignored (however, the current scope will be set to SYSTEMS).

The exits are called after each of the individual resources have been processed by ISGNQXIT/ISGNQXITFAST exits and GRS RNLs. The RNLs are always processed with any alterations made by the ISGNQXIT/ISGNQXITFAST exits. A history of the changes made by the exits and RNLs is provided via the following fields:

Scope alteration history:

- 1.NqbpRsc\_OriginalScope - The scope specified on the ENQ, DEQ, ISGENQ, or RESERVE.
- 2.NqbpRsc\_NqxScope - The scope after any ISGNQXIT/FAST exit alterations.
- 3.NqbpRsc\_Scope - The scope after any RNL alterations.

Regardless of all other indicators, this is the final scope that will be used.

RNL processing history:

- NqbpRsc\_SF1\_RnlEqNo - RNLs were not processed
  - NqbpRsc\_SF2\_Included - A SYSTEM scope was promoted to SYSTEMS
  - NqbpRsc\_SF2\_Excluded - A SYSTEMS scope was excluded to SYSTEM
- This and NqbpRsc\_SF2\_Included can be on as it may have been promoted generically and then more specifically demoted.
- NqbpRsc\_SF2\_Converted - A RESERVE obtain/release was converted from a RESERVE-ENQ/DEQ to

a ENQ/DEQ only.

For all ENQ requests that specify a RET value or an ECB value the ISGNQXITBATCH exit routines can set a non-zero return code, overriding ENQ/RESERVE functionality. To set a return code, the exit routine sets:

Nqbp\_RF1\_SetRscRequest in the NQBP

NqbpRsc\_RF1\_SetReturnCode in the appropriate NqbpRsc entry

NqbpRsc\_CP\_ReturnCode to a non-zero value

If you would like GRS to represent a request set '0' (or do not set anything in the return code field, it will default to 0)

for the request. GRS will set the appropriate return code.

When one of the following return codes is set by the batch exit, GRS will bypass processing of the resource and pass the return code back to the caller. The request will not be represented by GRS.

A batch exit routine is allowed to set the following return codes:

ENQ/RESERVE:

RET=TEST RC=4,8,14,20

RET=USE RC=4,8,14,18

RET=CHNG RC=4,8,14

RET=HAVE RC=8,14,18,28,44

RET=ECB RC=8,14,18,28,44

DEQ:

RET=HAVE RC=4,8

ISGENQ:

RC=4 RSN=0402,0404,0405,0406,0407,0409,040A,040B

RC=8 RSN=0815

RC=C RSN=0C05

RC=10 RSN=FFyy where yy are diagnostic bits set by the exit

ENQ/DEQ/RESERVE and ISGENQ return codes are documented in the MVS: Authorized Assembler Reference books.

For all requests the ISGNQXITBATCH exit routine can set a one-byte

ABEND code and half-word reason code for the request. The one

byte ABEND code is used to generate the ABEND code. For example,

if the exit routine sets the ABEND code to 5 for an ENQ request,

a '538'x ABEND will be generated by ENQ processing.

To set an ABEND code, the exit routine sets:

Nqbp\_RF1\_SetABEND in the NQBP

Nqbp\_CP\_ABENDCode to a non-zero value

Nqbp\_CP\_ABENDReason to a non-zero value (optional)

ENQ/DEQ/RESERVE ABEND codes are documented in the MVS: System Codes book.

Most of the exits that are driven for a request are provided a

unique "request token" which allows the exits to correlate any

required user information between exit callers. For example, the

Nqbp\_RD\_RequestToken will be the same as the Nqxp\_RequestToken if

both the ISGNQXITBatchCnd and ISGNQXITFAST exits are driven for

the same request.

## ISGYNQBP mapping

Table 1043. Structure NQBP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQBP	
0	(0)	CHARACTER	4	NQBP_ID	Eyecatcher
4	(4)	BITSTRING	1	NQBP_VERSION	Version. See version constants below e.g. Nqbp_kVersion#1
5	(5)	CHARACTER	3		Reserved
8	(8)	ADDRESS	4	NQBP_WORKAREA@	Pointer to a 4K work area, usable by exit routines



Table 1043. Structure NQBP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
12	(C)	CHARACTER	56	NQBP_REQUESTDATA	ENQ/DEQ request state information, these values cannot be changed
12	(C)	CHARACTER	16	NQBP_RD_REQUESTTOKEN	Unique token identifying the GRS exit call processing for the request. If needed, all exits driven for this request can use this token to identify the same request. See the prologue for more information.
28	(1C)	ADDRESS	4	NQBP_RD_ASCB@	Pointer to requester's ASCB
32	(20)	ADDRESS	4	NQBP_RD_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified
36	(24)	SIGNED	2	NQBP_RD_MASID	Request MASID value
38	(26)	CHARACTER	2		Reserved
40	(28)	ADDRESS	4	NQBP_RD_MTCB	Request MTCB value
44	(2C)	CHARACTER	8	NQBP_RD_JOBNAME	Requester's Jobname
52	(34)	CHARACTER	8	NQBP_RD_SYSNAME	Requester's Sysname
60	(3C)	ADDRESS	4	NQBP_RD_NSI@	Requester's next sequential instruction address, when ENQ/DEQ ends, this is address of the next instruction in the calling program that will be executed
Bit definitions:					
		1... ....		NQBP_RD_AMODE31	"X'80'" When set, ENQ caller is AMODE 31
64	(40)	ADDRESS	4	NQBP_RD_ECB@	Pointer to original request ECB (set when ECB= specified on the request)
68	(44)	CHARACTER	4	NQBP_STATEFLAGS	ENQ/DEQ request state flags, these values cannot be changed
68	(44)	BITSTRING	1	NQBP_STATEFLAGS1	First byte of state flags
Bit definitions:					
		1... ....		NQBP_SF1_ENQ	"X'80'" When 1, request is ENQ/RESERVE, when 0, request is DEQ. If Nqbp_SF1_ISGENQ is set then when 1, ISGENQ REQUEST=OBTAIN or CHANGE, when 0, REQUEST=RELEASE. See Nqbp_SF2_Change to distinguish between ISGENQ REQUEST=OBTAIN and REQUEST=CHANGE.
		.1.. ....		NQBP_SF1_AUTHORIZED	"X'40'" Caller is authorized
		..1. ....		NQBP_SF1_MATCHTASK	"X'20'" When 1, request specified MASID/MTCB
		...1 ....		NQBP_SF1_SMCORRM	"X'10'"
		...1 ....		NQBP_SF1_STEPMUSTCOMPLETE	"X'10'" When 1, ENQ request specified SMC=YES
		...1 ....		NQBP_SF1_RESETMUSTCOMPLETE	"X'10'" When 1, DEQ request specified RMC=YES
		.... 1...		NQBP_SF1_LINKAGE	"X'08'" When 1, request is PC entered when 0, request is SVC entered. As ISGENQ requests are all PC entered, this bit will be 1 for all ISGENQ requests.
		.... ..1.		NQBP_SF1_ISGENQ	"X'02'" When 1, request is via ISGENQ service
		.... ...1		NQBP_SF1_ISGENQCONDYES	"X'01'" When 1, request is a conditional ISGENQ request (ISGENQ COND=YES)

Table 1043. Structure NQBP (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
69	(45)	BITSTRING	1	NQBP_STATEFLAGS2	State flags byte two
Bit definitions:					
		..1. ....		NQBP_SF2_CHANGE	"X'20'" When 1, request is a change (i.e. ENQ RET=CHNG or ISGENQ REQUEST=CHANGE).
		...1 ....		NQBP_SF2_TEST_YES	"X'10'" When 1, ISGENQ with TEST=YES. When 0, Not ISGENQ with TEST=YES (i.e. TEST=NO if Nqbp_SF1_ISGENQ is set).
		.... 1...		NQBP_SF2_CONTENTIONACT_FAIL	"X'08'" When 1, ISGENQ with CONTENTIONACT=FAIL. When 0, not CONTENTIONACT=FAIL (i.e. CONTENTIONACT=WAIT if Nqbp_SF1_ISGENQ is set and Nqbp_SF2_TEST_YES is off).
		.... .1..		NQBP_SF2_ECB	"X'04'" When 1, ECB keyword specified (i.e. ISGENQ WAITTYPE=ECB or or ENQ with ECB). When 0, No ECB specified (i.e. WAITTYPE=SUSPEND if Nqbp_SF1_ISGENQ is set and Nqbp_SF2_TEST_YES and Nqbp_SF2_CONTENTIONACT_FAIL are off).
		.... ..1.		NQBP_SF2_CHANGETOSHARED	"X'02'" When 1, ISGENQ REQUEST=CHANGE specified CONTROL=SHARED. If the request is successful, the requester will be converted from an exclusive owner to a shared owner. Only valid when Nqbp_SF2_Change is 1
70	(46)	CHARACTER	2		Reserved
72	(48)	CHARACTER	4	NQBP_REQUESTFLAGS	Request flags
72	(48)	BITSTRING	1	NQBP_REQUESTFLAGS1	First byte of flags
Bit definitions:					
		1... ....		NQBP_RF1_SETRSCREQUEST	"X'80'" When 1, indicates that a request was made in one or more NqbpRsc entries
		.1.. ....		NQBP_RF1_SETABEND	"X'40'" When 1, indicates that an ABEND is requested from mainline processing
73	(49)	CHARACTER	3		Reserved
76	(4C)	SIGNED	4	NQBP_#RESOURCES	Number of resources in the request
80	(50)	ADDRESS	4	NQBP_FIRSTNQBP_RSC@	Pointer to first NqbpRsc entry (NqbpRsc_Entry)
84	(54)	CHARACTER	4	NQBP_CURRENTPARAMETERS	Parameters as changed by exit routines
84	(54)	BITSTRING	1	NQBP_CP_ABENDCODE	First digit of of the ABEND code (eg. x30 for DEQ and x38 for ENQ)
85	(55)	CHARACTER	1		Reserved
86	(56)	SIGNED	2	NQBP_CP_ABENDREASON	ABEND Reason Code
88	(58)	CHARACTER	8		Reserved
96	(60)	CHARACTER	1	NQBP_END(0)	
96	(60)	X'60'	0	NQBP_LEN	"*-NQBP"

Table 1044. Structure NQBPRSC\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQBPRSC_ENTRY	
0	(0)	ADDRESS	4	NQBPRSC_NEXTNQBPRSC@	Pointer to next NqbpRsc entry, 0 indicates end of list
4	(4)	CHARACTER	8	NQBPRSC_TOKEN	For control program use only - defines which entry in the request corresponds to this NqbpRsc_Entry
12	(C)	CHARACTER	8	NQBPRSC_QNAME	Request QName
20	(14)	ADDRESS	4	NQBPRSC_RNAME@	Pointer to NQBP RNAME
24	(18)	BITSTRING	1	NQBPRSC_SCOPE	Final Scope after all possible alterations. See Nqbp_kScope for possible values and the prologue on how the scope can change. Only valid for non generic DEQ requests (i.e. NqbpRsc_RNameLen!=0).
25	(19)	BITSTRING	1	NQBPRSC_RET	Request RET value, see Nqbp_kRET values Note that this field will be the same for every NqbpRsc entry in the list.
Bit definitions:					
		.... .1..		NQBPRSC_RET1	"X'04'" Maps to PELRET1
		.... ..1.		NQBPRSC_RET2	"X'02'" Maps to PELRET2
		.... ...1		NQBPRSC_RET3	"X'01'" Maps to PELRET3
26	(1A)	BITSTRING	1	NQBPRSC_RNAMELEN	Length of the RName. When 0, request is a generic DEQ
27	(1B)	BITSTRING	1	NQBPRSC_ORIGINALSCOPE	Original scope specified on the GRS API. See the prologue for information on which scopes are presented. See Nqbp_kScope for possible values. Only valid for non generic DEQ requests (NqbpRsc_RNameLen!=0).
28	(1C)	CHARACTER	4	NQBPRSC_STATEFLAGS	Resource state flags
28	(1C)	BITSTRING	1	NQBPRSC_STATEFLAGS1	First byte of resource state flags
Bit definitions:					
		1... ....		NQBPRSC_SF1_SHARE	"X'80'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
		.1.. ....		NQBPRSC_SF1_RNLEQNO	"X'40'" RNL=NO was specified on the GRS API (the request).
29	(1D)	BITSTRING	1	NQBPRSC_STATEFLAGS2	Second byte of resource flags
Bit definitions:					
		1... ....		NQBPRSC_SF2_INCLUDED	"X'80'" RNL history indicator: The Resource was promoted to SYSTEMS scope. It may have also been demoted back to SYSTEM level. See NqbpRsc_Scope for the final scope.
		.1.. ....		NQBPRSC_SF2_CONVERTED	"X'40'" RNL history indicator: The Resource was converted from a RESERVE to SYSTEMS ENQ only. Note that NqbpRsc_Ucb@ will still be set.
		..1. ....		NQBPRSC_SF2_EXCLUDED	"X'20'" RNL history indicator: The Resource was demoted to SYSTEM scope. Note that the NqbpRsc_Scope is the final scope.

Table 1044. Structure NQBPRSC\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		...1 ....		NQBPRSC_SF2_GLOBAL	"X'10'" Resource request will be processed globally by GRS. Note NqbpRsc_SF2_Global will always be off in GRS=NONE mode even though NqbpRsc_Scope may be SYSTEMS.
30	(1E)	CHARACTER	2		
32	(20)	ADDRESS	4	NQBPRSC_UCB@	Request UCB address after ISGNQXIT/FAST and RNL processing. Only valid when Nqbp_SF1_ENQ is set. Note that the actual device RESERVE will not be issued when NqbpRsc_SF2_Converted or NqbpRsc_RF1_ConvertReserve is set.
36	(24)	CHARACTER	4	NQBPRSC_REQUESTFLAGS	
36	(24)	BITSTRING	1	NQBPRSC_REQUESTFLAGS1	
<p>For conditional (RET=CHNG, RET=USE) or test (RET=TEST) requests exit routines can override ENQ/DEQ functionality and substitute a return code (other than zero) to be returned to the caller. If the return code is set, ENQ/DEQ processing will NOT occur for the resource. This override is ignored for all other types of requests.</p> <p>Bit definitions:</p>					
		1... ....		NQBPRSC_RF1_SETRETURNCODE	"X'80'" When 1, request that the return code be set for this conditional/test request
<p>For a RESERVE request, exit routines can specify that the RESERVE be converted to an ENQ.</p>					
		.1.. ....		NQBPRSC_RF1_CONVERTRESERVE	"X'40'" When 1, request that this RESERVE be converted to a ENQ only (no device reserve)
<p>For ISGENQ conditional (RET=CHNG, RET=USE) or test (RET=TEST) requests exit routines can override ENQ/DEQ functionality and substitute a reason code (other than zero) to be returned to the caller. This reason code must accompany a NON zero return code. This override is ignored for all other types of requests.</p>					
		..1. ....		NQBPRSC_RF1_SETREASONCODE	"X'20'" When 1, request that the reason code be set for this conditional/test request. Only processed when version is Nqbp_kVersion#2 or greater.
37	(25)	BITSTRING	1		Reserved
38	(26)	CHARACTER	2		Reserved
40	(28)	CHARACTER	4	NQBPRSC_CURRENTPARAMETERS	Parameters as changed by exit routines
40	(28)	BITSTRING	1	NQBPRSC_CP_RETURNCODE	Current value of return code to be passed to the requester
41	(29)	CHARACTER	3		Reserved
44	(2C)	SIGNED	4	NQBPRSC_CP_REASONCODE	Reason code set by exit Only processed when version is Nqbp_kVersion#2
44	(2C)	SIGNED	2		We ignore this since we append the exit id
46	(2E)	SIGNED	2	NQBPRSC_CP_LORSNCODE	

Table 1044. Structure NQBPRSC\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	BITSTRING	1	NQBPRSC_NQXITSCOPE	Scope value after ISGNQXITFAST and ISGNQXIT processing. See Nqbp_kScope for possible values and the prologue for information on which scopes are presented. Only provided in version Nqbp_kVersion#3 and up. A comparison with NqbpRsc_OriginalScope determines if the exit changed the scope. Only valid for non generic DEQ requests (NqbpRsc_RNameLen!=0).
49	(31)	CHARACTER	7		Unused
56	(38)	CHARACTER	64		Reserved (see ISGYNQQP)
120	(78)	CHARACTER	1	NQBPRSC_END(0)	
NQBPRSC Constants					
120	(78)	X'D8C2D7'	0	NQBP_KID	"C'NQBP'" Used to identify control block
120	(78)	X'1'	0	NQBP_KVERSION#1	"1" Version constant -HBB7705
120	(78)	X'2'	0	NQBP_KVERSION#2	"2" Version constant -HBB7709
120	(78)	X'3'	0	NQBP_KVERSION#3	"3" Version constant -HBB7740
120	(78)	X'4'	0	NQBP_KVERSION#4	"4" Version constant -HBB7750
120	(78)	X'4'	0	NQBP_KCURRENTVERSION	"4" Current version
120	(78)	X'1'	0	NQBP_KBATCHEXIT	"1" Parameter list is being passed to the batch exit
120	(78)	X'2'	0	NQBP_KQUEUEDEXIT	"2" Parameter list is being passed to the queued exit
120	(78)	X'0'	0	NQBP_KSCOPESTEP	"0" Scope=Step
120	(78)	X'1'	0	NQBP_KSCOPESYSTEM	"1" Scope=System
120	(78)	X'2'	0	NQBP_KSCOPESYSTEMS	"2" Scope=Systems
120	(78)	X'2'	0	NQBP_KSCOPESYSPLEX	"2" Scope=Sysplex
120	(78)	X'0'	0	NQBP_KRETNONE	"0" Ret=None
120	(78)	X'1'	0	NQBP_KRETHAVE	"1" Ret=Have
120	(78)	X'2'	0	NQBP_KRETCHNG	"2" Ret=Chng
120	(78)	X'3'	0	NQBP_KRETUSE	"3" Ret=Use
120	(78)	X'4'	0	NQBP_KRETECB	"4" An ECB is specified for this ENQ request, via either the ECB= parameter on ENQ or the WAITTYPE=ECB parameter on ISGENQ REQUEST=OBTAIN
120	(78)	X'7'	0	NQBP_KRETTEST	"7" Ret=Test
120	(78)	X'60'	0	NQBP_KLENGTH	"96" Maximum length of Nqbp
120	(78)	X'E5'	0	NQBP_KSUBPOOL	"229" Subpool 229
120	(78)	X'78'	0	NQBPRSC_ENTRY_LEN	"*-NQBPRSC_ENTRY"

Table 1045. Cross Reference for ISGYNQBP

Name	Offset	Hex Tag
NQBP	0	
NQBP_#RESOURCES	4C	
NQBP_CP_ABENDCODE	54	
NQBP_CP_ABENDREASON	56	
NQBP_CURRENTPARAMETERS	54	

Table 1045. Cross Reference for ISGYNQBP (continued)

Name	Offset	Hex Tag
NQBP_END	60	
NQBP_FIRSTNQBP_RSC@	50	
NQBP_ID	0	
NQBP_KBATCHEXIT	78	1
NQBP_KCURRENTVERSION	78	4
NQBP_KID	78	D8C2D7
NQBP_KLENGTH	78	60
NQBP_KQUEUEDEXIT	78	2
NQBP_KRETCHNG	78	2
NQBP_KRETECB	78	4
NQBP_KRETHAVE	78	1
NQBP_KRETNONE	78	0
NQBP_KRETTEST	78	7
NQBP_KRETUSE	78	3
NQBP_KSCOPESTEP	78	0
NQBP_KSCOPESSYPLEX	78	2
NQBP_KSCOPESSYSTEM	78	1
NQBP_KSCOPESSYSTEMS	78	2
NQBP_KSUBPOOL	78	E5
NQBP_KVERSION#1	78	1
NQBP_KVERSION#2	78	2
NQBP_KVERSION#3	78	3
NQBP_KVERSION#4	78	4
NQBP_LEN	60	60
NQBP_RD_AMODE31	3C	80
NQBP_RD_ASCB@	1C	
NQBP_RD_ECB@	40	
NQBP_RD_JOBNAME	2C	
NQBP_RD_MASID	24	
NQBP_RD_MTCB	28	
NQBP_RD_NSI@	3C	
NQBP_RD_REQUESTTOKEN	C	
NQBP_RD_SYSNAME	34	
NQBP_RD_TCB@	20	
NQBP_REQUESTDATA	C	
NQBP_REQUESTFLAGS	48	
NQBP_REQUESTFLAGS1	48	
NQBP_RF1_SETABEND	48	40
NQBP_RF1_SETRSCREQUEST	48	80

Table 1045. Cross Reference for ISGYNQBP (continued)

Name	Offset	Hex Tag
NQBP_SF1_AUTHORIZED	44	40
NQBP_SF1_ENQ	44	80
NQBP_SF1_ISGENQ	44	2
NQBP_SF1_ISGENQCONDYES	44	1
NQBP_SF1_LINKAGE	44	8
NQBP_SF1_MATCHTASK	44	20
NQBP_SF1_RESETMUSTCOMPLETE	44	10
NQBP_SF1_SMCORRM	44	10
NQBP_SF1_STEPMUSTCOMPLETE	44	10
NQBP_SF2_CHANGE	45	20
NQBP_SF2_CHANGETOSHARED	45	2
NQBP_SF2_CONTENTIONACT_FAIL	45	8
NQBP_SF2_ECB	45	4
NQBP_SF2_TEST_YES	45	10
NQBP_STATEFLAGS	44	
NQBP_STATEFLAGS1	44	
NQBP_STATEFLAGS2	45	
NQBP_VERSION	4	
NQBP_WORKAREA@	8	
NQBPRSC_CP_LORSNCODE	2E	
NQBPRSC_CP_REASONCODE	2C	
NQBPRSC_CP_RETURNCODE	28	
NQBPRSC_CURRENTPARAMETERS	28	
NQBPRSC_END	78	
NQBPRSC_ENTRY	0	
NQBPRSC_ENTRY_LEN	78	78
NQBPRSC_NEXTNQBPRSC@	0	
NQBPRSC_NQXITSCOPE	30	
NQBPRSC_ORIGINALSCOPE	1B	
NQBPRSC_QNAME	C	
NQBPRSC_REQUESTFLAGS	24	
NQBPRSC_REQUESTFLAGS1	24	
NQBPRSC_RET	19	
NQBPRSC_RET1	19	4
NQBPRSC_RET2	19	2
NQBPRSC_RET3	19	1
NQBPRSC_RF1_CONVERTRESERVE	24	40
NQBPRSC_RF1_SETREASONCODE	24	20
NQBPRSC_RF1_SETRETURNCODE	24	80

Table 1045. Cross Reference for ISGYNQBP (continued)

Name	Offset	Hex Tag
NQBPRSC_RNAME@	14	
NQBPRSC_RNAMELEN	1A	
NQBPRSC_SCOPE	18	
NQBPRSC_SF1_RNLEQNO	1C	40
NQBPRSC_SF1_SHARE	1C	80
NQBPRSC_SF2_CONVERTED	1D	40
NQBPRSC_SF2_EXCLUDED	1D	20
NQBPRSC_SF2_GLOBAL	1D	10
NQBPRSC_SF2_INCLUDED	1D	80
NQBPRSC_STATEFLAGS	1C	
NQBPRSC_STATEFLAGS1	1C	
NQBPRSC_STATEFLAGS2	1D	
NQBPRSC_TOKEN	4	
NQBPRSC_UCB@	20	

## ISGYNQPB information

### ISGYNQPB programming interface information

ISGYNQPB is a programming interface.

### ISGYNQPB heading information

<b>Common name:</b>	Pre-Batch ENQ Exit Parameter List
<b>Macro ID:</b>	ISGYNQPB
<b>DSECT name:</b>	NQPB
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	NQPB Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 215 Key: 0 Residency: Above the 16M line
<b>Size:</b>	LENGTH(NQPB) NQPB -- X'0060' bytes NQBPRSC_ENTRY -- X'0030' bytes
<b>Created by:</b>	ISGGNX
<b>Pointed to by:</b>	R1 points to the NQPB on entry to the exit routine
<b>Serialization:</b>	N/A



**Function:**

The Pre-Batched ENQ/DEQ Parameter list is passed to an installation provided exit (installed at the ISGNQXITPREBATCH exit point) to determine if the request should be presented to the ISGNQXITBATCHCND, ISGNQXITQUEUED1, or ISGNQXITQUEUED2 exits. If an exit routine for any resource in a list request indicates that an exit be called, the entire resource list will be presented to that exit.

Note: If there are no ISGNQXITPREBATCH exit routines, the ISGNQXITBATCHCND exit will never be invoked. The ISGNQXITQUEUED1 and ISGNQXITQUEUED2 exits are called only if either of the batch exits (ISGNQXITBATCH and ISGNQXITBATCHCND) are called. If the request is to be globally managed by an alternate serialization product, then NQPB\_ER\_AltSerExtended should be set. This indication will be returned on an ISGQUERY request, or by an ISGENQ TEST=YES request.

The data presented in this parameter list are read only. Changes to an ENQ/DEQ/RESERVE request can only be made through the ISGNQXIT exit point. Altering the data in the parameter list can result in severe consequences, including ABENDs, data integrity errors, and/or system wait states.

The exits are called after each of the individual resources have been processed by ISGNQXIT/ISGNQXITFAST exits and GRS RNLs. The RNLs are always processed with any alterations made by the ISGNQXIT/ISGNQXITFAST exits. A history of the changes made by the exits and RNLs is provided via the following fields:

Scope alteration history:

1.Nqpb\_RD\_OriginalScope - The scope specified on the ENQ, DEQ, ISGENQ, or RESERVE.

2.Nqpb\_RD\_NqxitScope - The scope after any ISGNQXIT/FAST exit alterations.

3.Nqpb\_RD\_Scope - The scope after any RNL alterations.

Regardless of all other indicators, this is the final scope that will be used.

RNL processing history:

Nqpb\_SF2\_RnlEqNo - RNLs were not processed

Nqpb\_SF3\_Included - A SYSTEM scope was promoted to SYSTEMS

Nqpb\_SF3\_Excluded - A SYSTEMS scope was excluded to SYSTEM

This and Nqpb\_SF3\_Included can be on as it may have been promoted generically and then more specific demoted.

Nqpb\_SF3\_Converted - A RESERVE obtain/release was converted from a RESERVE-ENQ/DEQ to a ENQ/DEQ only.

Most of the exits that are driven for a request are provided a unique "request token" which allows the exits to correlate any required user information between exit callers. For example, the Nqpb\_RD\_RequestToken will be the same as the Nqxp\_RequestToken if both the ISGNQXITPREBATCH and ISGNQXITFAST exits are driven for the same request.

## ISGYNQPB mapping

Table 1046. Structure NQPB

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQPB	
0	(0)	CHARACTER	4	NQPB_ID	Eyecatcher
4	(4)	BITSTRING	1	NQPB_VERSION	Version. See version constants below e.g. Nqpb_kVersion#1

Table 1046. Structure NQPB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	CHARACTER	3		Reserved
8	(8)	ADDRESS	4	NQPB_WORKAREA@	Pointer to a 4K work area, usable by exit routines
12	(C)	CHARACTER	72	NQPB_REQUESTDATA(0)	ENQ/DEQ request state information, these values cannot be changed
12	(C)	CHARACTER	16	NQPB_RD_REQUESTTOKEN	Unique token identifying the GRS exit call processing for the request. If needed, all exits driven for this request can use this token to identify the same request. See the prologue for more information.
28	(1C)	ADDRESS	4	NQPB_RD_QNAME@	Pointer to request QNAME
32	(20)	ADDRESS	4	NQPB_RD_RNAME@	Pointer to request RNAME
36	(24)	ADDRESS	4	NQPB_RD_UCB@	Request UCB address after ISGNQXIT/FAST and RNL processing. Only valid when Nqpb_SF1_ENQ is set. Note that the actual device RESERVE will not be issued when Nqpb_SF3_Converted is set
40	(28)	BITSTRING	1	NQPB_RD_SCOPE	Request scope, see Nqpb_kScope values
41	(29)	BITSTRING	1	NQPB_RD_ORIGINALSCOPE	Scope before exit and RNL processing, see Nqpb_kScope
42	(2A)	BITSTRING	1	NQPB_RD_RET(0)	Request RET value, see Nqpb_kRET values
		.... .1..		NQPB_RD_RET1	"X'04'" Maps to PELRET1
		.... ..1.		NQPB_RD_RET2	"X'02'" Maps to PELRET2
		.... ...1		NQPB_RD_RET3	"X'01'" Maps to PELRET3
43	(2B)	BITSTRING	1	NQPB_RD_RNAMELEN	Length of the RName. When 0, request is a generic DEQ
44	(2C)	ADDRESS	4	NQPB_RD_ASCB@	Pointer to requester's ASCB
48	(30)	ADDRESS	4	NQPB_RD_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified
52	(34)	SIGNED	2	NQPB_RD_MASID	Request MASID value
54	(36)	BITSTRING	1	NQPB_RD_NQXITSCOPE	Scope value after ISGNQXITFAST and ISGNQXIT processing. See Nqpb_kScope for possible values and the prologue for information on which scopes are presented. Only provided in version Nqpb_kVersion#3 and up. A comparison with Nqpb_RD_OriginalScope determines if the exit changed the scope.
55	(37)	CHARACTER	1		Reserved
56	(38)	ADDRESS	4	NQPB_RD_MTCB	Request MTCB value
60	(3C)	CHARACTER	8	NQPB_RD_JOBNAME	Requester's Jobname
68	(44)	CHARACTER	8	NQPB_RD_SYSNAME	Requester's Sysname
76	(4C)	ADDRESS	4	NQPB_RD_NSI@(0)	Requester's next sequential instruction address, when ENQ/DEQ ends, this is address of the next instruction in the calling program that will be executed
		1... ....		NQPB_RD_AMODE31	"X'80'" When set, ENQ caller is AMODE 31
80	(50)	ADDRESS	4	NQPB_RD_ECB@	Pointer to original request ECB (set when ECB= specified on the request)
84	(54)	CHARACTER	3	NQPB_STATEFLAGS(0)	ENQ/DEQ request state flags, these values cannot be changed
84	(54)	BITSTRING	1	NQPB_STATEFLAGS1(0)	First byte of state flags

Table 1046. Structure NQPB (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		NQPB_SF1_ENQ	"X'80'" When 1, request is ENQ/ RESERVE, when 0, request is DEQ. If Nqpb_SF1_ISGENQ is set then when 1, ISGENQ REQUEST=OBTAIN or CHANGE, when 0, REQUEST=RELEASE. See Nqpb_SF2_Change to distinguish between ISGENQ REQUEST=OBTAIN and REQUEST=CHANGE.
		.1.. ....		NQPB_SF1_AUTHORIZED	"X'40'" Caller is authorized
		..1. ....		NQPB_SF1_MATCHTASK	"X'20'" When 1, request specified MASID/MTCB
		...1 ....		NQPB_SF1_SMCORRMC	"X'10'"
		...1 ....		NQPB_SF1_STEPMUSTCOMPLETE	"X'10'" When 1, ENQ request specified SMC=YES
		...1 ....		NQPB_SF1_RESETMUSTCOMPLETE	"X'10'" When 1, DEQ request specified RMC=YES
		.... 1..		NQPB_SF1_LINKAGE	"X'08'" When 1, request is PC entered when 0, request is SVC entered. As ISGENQ requests are all PC entered, this bit will be 1 for all ISGENQ requests.
		.... .1..		NQPB_SF1_ISGENQ	"X'04'" When 1, request is ISGENQ
		.... ..1.		NQPB_SF1_ISGENQCONDYES	"X'02'" When 1, request is a conditional ISGENQ request (ISGENQ COND=YES)
85	(55)	BITSTRING	1	NQPB_STATEFLAGS2(0)	Second byte of state flags
		1... ....		NQPB_SF2_SHARE	"X'80'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
		.1.. ....		NQPB_SF2_RNLQNO	"X'40'" RNL=NO was specified on the request
		..1. ....		NQPB_SF2_CHANGE	"X'20'" When 1, request is a change (i.e. ENQ RET=CHNG or ISGENQ REQUEST=CHANGE).
		...1 ....		NQPB_SF2_TEST_YES	"X'10'" When 1, ISGENQ with TEST=YES. When 0, Not ISGENQ with TEST=YES (i.e. TEST=NO if Nqpb_SF1_ISGENQ is set).
		.... 1..		NQPB_SF2_CONTENTIONACT_FAIL	"X'08'" When 1, ISGENQ with CONTENTIONACT=FAIL. When 0, not CONTENTIONACT=FAIL (i.e. CONTENTIONACT=WAIT if Nqpb_SF1_ISGENQ is set and Nqpb_SF2_TEST_YES is off).
		.... .1..		NQPB_SF2_ECB	"X'04'" When 1, ECB keyword specified (i.e. ISGENQ WAITTYPE=ECB or or ENQ with ECB). When 0, No ECB specified (i.e. WAITTYPE=SUSPEND if Nqpb_SF1_ISGENQ is set and Nqpb_SF2_TEST_YES and Nqpb_SF2_CONTENTIONACT_FAIL are off).
		.... ..1.		NQPB_SF2_CHANGETOSHARED	"X'02'" When 1, ISGENQ REQUEST=CHANGE specified CONTROL=SHARED. If the request is successful, the requester will be converted from an exclusive owner to a shared owner. Only valid when Nqpb_SF2_Change is 1
86	(56)	BITSTRING	1	NQPB_STATEFLAGS3(0)	Third byte of state flags
		1... ....		NQPB_SF3_INCLUDED	"X'80'" Resource promoted to SYSTEMS scope

Table 1046. Structure NQPB (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.1.. ....		NQPB_SF3_CONVERTED	"X'40'" Resource converted from RESERVE to SYSTEMS ENQ only. As such, the device RESERVE will not be issued, but Nqpb_RD_Ucb@ will still be set
		..1. ....		NQPB_SF3_EXCLUDED	"X'20'" Resource demoted to SYSTEM scope
		...1 ....		NQPB_SF3_GLOBAL	"X'10'" Resource request will be processed globally by GRS. Note Nqpb_SF3_Global will always be off in GRS=NONE mode.
87	(57)	CHARACTER	1		Reserved
88	(58)	CHARACTER	4	NQPB_EXITRESPONSEFLAGS(0)	Response from exit routines
88	(58)	BITSTRING	1	NQPB_EXITRESPONSEFLAGS1(0)	First byte of exit response flags
		1... ....		NQPB_ER_CALLISGNQXITBATCHCND	"X'80'" Drive this request through the ISGNQXITBATCHCND exit point
		.1.. ....		NQPB_ER_ALTSEREXTENDED	"X'40'" Used by alternate serialization products to show that this request is being managed at the global (SYSTEMS) level. Only processed when version is Nqpb_kVersion#2 and above.
		.... 1...		NQPB_ER_INTERESTINPREB	"X'08'"
		.... .1..		NQPB_ER_CALLPREBFORTHISRESOURCE	"X'04'"
89	(59)	CHARACTER	3		Reserved
92	(5C)	CHARACTER	4		Reserved
96	(60)	CHARACTER	1	NQPB_END(0)	
NQPB Constants					
96	(60)	X'D8D7C2'	0	NQPB_KID	"C'NQPB'" Used to identify control block
96	(60)	X'1'	0	NQPB_KVERSION#1	"1" Version constant - HBB7705
96	(60)	X'2'	0	NQPB_KVERSION#2	"2" Version constant - HBB7709
96	(60)	X'3'	0	NQPB_KVERSION#3	"3" Version constant - HBB7740
96	(60)	X'4'	0	NQPB_KVERSION#4	"4" Version constant - HBB7750
96	(60)	X'4'	0	NQPB_KCURRENTVERSION	"4" Current version
96	(60)	X'0'	0	NQPB_KSCOPESTEP	"0" Scope=Step
96	(60)	X'1'	0	NQPB_KSCOPESYSTEM	"1" Scope=System
96	(60)	X'2'	0	NQPB_KSCOPESYSTEMS	"2" Scope=Systems
96	(60)	X'0'	0	NQPB_KRETNONE	"0" Ret=None
96	(60)	X'1'	0	NQPB_KRETHAVE	"1" Ret=Have
96	(60)	X'2'	0	NQPB_KRETCHNG	"2" Ret=Chng
96	(60)	X'3'	0	NQPB_KRETUSE	"3" Ret=Use
96	(60)	X'7'	0	NQPB_KRETTST	"7" Ret=Test
96	(60)	X'F0'	0	NQPB_KSF3MASK	"240" Mask for copying from PelXFlg1 to Nqpb_StateFlags3
96	(60)	X'60'	0	NQPB_KLENGTH	"96" Length of NQPB
96	(60)	X'60'	0	NQPB_LEN	"*-NQPB"

Table 1047. Cross Reference for ISGYNQPB

Name	Offset	Hex Tag
NQPB	0	
NQPB_END	60	
NQPB_ER_ALTSEEXTENDED	58	40
NQPB_ER_CALLISGNQXITBATCHCND	58	80
NQPB_ER_CALLPREBFORTHISRESOURCE	58	4
NQPB_ER_INTERESTINPREB	58	8
NQPB_EXITRESPONSEFLAGS	58	
NQPB_EXITRESPONSEFLAGS1	58	
NQPB_ID	0	
NQPB_KCURRENTVERSION	60	4
NQPB_KID	60	D8D7C2
NQPB_KLENGTH	60	60
NQPB_KRETCHNG	60	2
NQPB_KRETHAVE	60	1
NQPB_KRETNONE	60	0
NQPB_KRETTTEST	60	7
NQPB_KRETUSE	60	3
NQPB_KSCOPESTEP	60	0
NQPB_KSCOPESYSTEM	60	1
NQPB_KSCOPESYSTEMS	60	2
NQPB_KSF3MASK	60	F0
NQPB_KVERSION#1	60	1
NQPB_KVERSION#2	60	2
NQPB_KVERSION#3	60	3
NQPB_KVERSION#4	60	4
NQPB_LEN	60	60
NQPB_RD_AMODE31	4C	80
NQPB_RD_ASCB@	2C	
NQPB_RD_ECB@	50	
NQPB_RD_JOBNAME	3C	
NQPB_RD_MASID	34	
NQPB_RD_MTCB	38	
NQPB_RD_NQXITSCOPE	36	
NQPB_RD_NSI@	4C	
NQPB_RD_ORIGINALSCOPE	29	
NQPB_RD_QNAME@	1C	
NQPB_RD_REQUESTTOKEN	C	
NQPB_RD_RET	2A	
NQPB_RD_RET1	2A	4

Table 1047. Cross Reference for ISGYNQPB (continued)

Name	Offset	Hex Tag
NQPB_RD_RET2	2A	2
NQPB_RD_RET3	2A	1
NQPB_RD_RNAME@	20	
NQPB_RD_RNAMELEN	2B	
NQPB_RD_SCOPE	28	
NQPB_RD_SYSNAME	44	
NQPB_RD_TCB@	30	
NQPB_RD_UCB@	24	
NQPB_REQUESTDATA	C	
NQPB_SF1_AUTHORIZED	54	40
NQPB_SF1_ENQ	54	80
NQPB_SF1_ISGENQ	54	4
NQPB_SF1_ISGENQCONDYES	54	2
NQPB_SF1_LINKAGE	54	8
NQPB_SF1_MATCHTASK	54	20
NQPB_SF1_RESETMUSTCOMPLETE	54	10
NQPB_SF1_SMCORRM	54	10
NQPB_SF1_STEPMUSTCOMPLETE	54	10
NQPB_SF2_CHANGE	55	20
NQPB_SF2_CHANGETOSHARED	55	2
NQPB_SF2_CONTENTIONACT_FAIL	55	8
NQPB_SF2_ECB	55	4
NQPB_SF2_RNLEQNO	55	40
NQPB_SF2_SHARE	55	80
NQPB_SF2_TEST_YES	55	10
NQPB_SF3_CONVERTED	56	40
NQPB_SF3_EXCLUDED	56	20
NQPB_SF3_GLOBAL	56	10
NQPB_SF3_INCLUDED	56	80
NQPB_STATEFLAGS	54	
NQPB_STATEFLAGS1	54	
NQPB_STATEFLAGS2	55	
NQPB_STATEFLAGS3	56	
NQPB_VERSION	4	
NQPB_WORKAREA@	8	

# ISGYNQQP information

## ISGYNQQP programming interface information

ISGYNQQP is a programming interface.

## ISGYNQQP heading information

<b>Common name:</b>	Queued ENQ Exit Parameter List
<b>Macro ID:</b>	ISGYNQQP
<b>DSECT name:</b>	NQQP
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	NQQP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 229 or 215 Key: 0 Residency: Above the 16M line
<b>Size:</b>	LENGTH(NQQP) NQQP -- X'0060' bytes NQQPRSC_ENTRY -- X'0078' bytes
<b>Created by:</b>	ISGGNX
<b>Pointed to by:</b>	R1 points to the NQQP on entry to the exit routine
<b>Serialization:</b>	N/A
<b>Function:</b>	The Queued ENQ parameter list is passed to an installation provided exit routine (installed at the ISGNQXITQUEUEU1 or ISGNQXITQUEUEU2 exits) to indicate that all of the elements have been queued. At the time of the ISGNQXITQUEUEU1 exit local processing has completed and global requests have been queued to the global processor. When ISGNQXITQUEUEU2 is invoked all requests have been processed. These exits are called just prior to waiting for contention (for unconditional requests that have not been promoted) or returning to the ENQ requester. The request data presented in this exit are read only. Most of the exits that are driven for a request are provided a unique "request token" which allows the exits to correlate any required user information between exit callers. For example, the Nqqp_RD_RequestToken will be the same as the Nqxp_RequestToken if both the ISGNQXITQUEUEU1 and ISGNQXITFAST exits are driven for the same request.

## ISGYNQQP mapping

Table 1048. Structure NQQP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQQP	
0	(0)	CHARACTER	4	NQQP_ID	Eyecatcher
4	(4)	BITSTRING	1	NQQP_VERSION	Version. See version constants below e.g. Nqqp_kVersion#1

Table 1048. Structure NQQP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
5	(5)	BITSTRING	1	NQQP_EXITTYPE	Indicates which exit is being called. See ExitType constants below e.g. Nqqp_kExitTypeQ1. Valid for Nqqp_Version of Nqqp_kVersion#5 or higher.
6	(6)	CHARACTER	2		Reserved
8	(8)	ADDRESS	4	NQQP_WORKAREA@	Pointer to a 4K work area, usable by exit routines
12	(C)	CHARACTER	56	NQQP_REQUESTDATA(0)	ENQ request state information, these values cannot be changed
12	(C)	CHARACTER	16	NQQP_RD_REQUESTTOKEN	Unique token identifying the GRS exit call processing for the request. If needed, all exits driven for this request can use this token to identify the same request. See the prologue for more information.
28	(1C)	ADDRESS	4	NQQP_RD_ASCB@	Pointer to requester's ASCB
32	(20)	ADDRESS	4	NQQP_RD_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified
36	(24)	SIGNED	2	NQQP_RD_MASID	Request MASID value
38	(26)	CHARACTER	2		Reserved
40	(28)	ADDRESS	4	NQQP_RD_MTCB	Request MTCB value
44	(2C)	CHARACTER	8	NQQP_RD_JOBNAME	Requester's Jobname
52	(34)	CHARACTER	8	NQQP_RD_SYSNAME	Requester's Sysname
60	(3C)	ADDRESS	4	NQQP_RD_NSI@(0)	Requester's next sequential instruction address, when ENQ ends, this is address of the next instruction in the calling program that will be executed
		1... ....		NQQP_RD_AMODE31	"X'80'" When set, ENQ caller is AMODE 31
64	(40)	ADDRESS	4	NQQP_RD_ECB@	Pointer to original request ECB (set when ECB= specified on the request)
68	(44)	CHARACTER	4	NQQP_STATEFLAGS(0)	ENQ request state flags, these values cannot be changed
68	(44)	BITSTRING	1	NQQP_STATEFLAGS1(0)	First byte of state flags
		1... ....		NQQP_SF1_ENQ	"X'80'" When 1, request is ENQ/RESERVE. This bit is never off. If Nqqp_SF1_ISGENQ is set then when 1, ISGENQ REQUEST=OBTAIN or CHANGE. See Nqqp_SF2_Change to distinguish between ISGENQ REQUEST=OBTAIN and REQUEST=CHANGE.
		.1.. ....		NQQP_SF1_AUTHORIZED	"X'40'" Caller is authorized
		..1. ....		NQQP_SF1_MATCHTASK	"X'20'" When 1, request specified MASID/MTCB
		...1 ....		NQQP_SF1_SMCORRMC	"X'10'"
		...1 ....		NQQP_SF1_STEPMUSTCOMPLETE	"X'10'" When 1, ENQ request specified SMC=YES
		...1 ....		NQQP_SF1_RESETMUSTCOMPLETE	"X'10'" Unused
		.... 1...		NQQP_SF1_LINKAGE	"X'08'" When 1, request is PC entered when 0, request is SVC entered. As ISGENQ requests are all PC entered, this bit will be 1 for all ISGENQ requests.
		.... .1..		NQQP_SF1_REDRIIVEFORRNLCCHANGE	



Table 1048. Structure NQQP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					"X'04'" When 1, this request is being redriven because a dynamic RNL change has occurred. Note that none of the Rsc entries associated with this Nqqp will contain valid return code information as none of the resource requests were queued. If a batch exit exists when the request is redriven, it will get control with a new request token and each of the Rsc entries will reflect the resource scope using the new RNLs.
		.... ..1.		NQQP_SF1_ISGENQ	"X'02'" When 1, request via ISGENQ service
		.... ...1		NQQP_SF1_ISGENQCONDYES	"X'01'" When 1, request is a conditional ISGENQ request (ISGENQ COND=YES)
69	(45)	BITSTRING	1	NQQP_STATEFLAGS2(0)	State flags byte two
		..1. ....		NQQP_SF2_CHANGE	"X'20'" When 1, request is a change (i.e. ENQ RET=CHNG or ISGENQ REQUEST=CHANGE).
		...1 ....		NQQP_SF2_TEST_YES	"X'10'" When 1, ISGENQ with TEST=YES. When 0, Not ISGENQ with TEST=YES (i.e. TEST=NO if Nqqp_SF1_ISGENQ is set).
		.... 1...		NQQP_SF2_CONTENTIONACT_FAIL	"X'08'" When 1, ISGENQ with CONTENTIONACT=FAIL. When 0, not CONTENTIONACT=FAIL (i.e. CONTENTIONACT=WAIT if Nqqp_SF1_ISGENQ is set and Nqqp_SF2_TEST_YES is off).
		.... .1..		NQQP_SF2_ECB	"X'04'" When 1, ECB keyword specified (i.e. ISGENQ WAITTYPE=ECB or or ENQ with ECB). When 0, No ECB specified (i.e. WAITTYPE=SUSPEND if Nqqp_SF1_ISGENQ is set and Nqqp_SF2_TEST_YES and Nqqp_SF2_CONTENTIONACT_FAIL are off).
		.... ..1.		NQQP_SF2_CHANGETOSHARED	"X'02'" When 1, ISGENQ REQUEST=CHANGE specified CONTROL=SHARED. If the request is successful, the requester will be converted from an exclusive owner to a shared owner. Only valid when Nqqp_SF2_Change is 1
70	(46)	CHARACTER	2		Reserved
72	(48)	CHARACTER	4	NQQP_REQUESTFLAGS(0)	Batch request flags
72	(48)	BITSTRING	1	NQQP_REQUESTFLAGS1(0)	First byte of flags
		1... ....		NQQP_RF1_SETRSCREQUEST	"X'80'" When 1, indicates that a module on the ISGNQXITBATCH exit requested a change to one or more NqqpRsc entries
		.1.. ....		NQQP_RF1_SETABEND	"X'40'" When 1, indicates that a module on the ISGNQXITBATCH exit requested to ABEND mainline processing. See Nqqp_ABENDInformation for the requested ABEND
73	(49)	CHARACTER	3		Reserved
76	(4C)	SIGNED	4	NQQP_#RESOURCES	Number of resources in the request
80	(50)	ADDRESS	4	NQQP_FIRSTNQQPRSC@	Pointer to first NqqpRsc entry
84	(54)	CHARACTER	4	NQQP_ABENDINFORMATION(0)	ABEND state of request
84	(54)	SIGNED	2	NQQP_ABENDCD(0)	Abend code. Zero if the request is not ABENDING
84	(54)	BITSTRING	1	NQQP_ABENDCODE	First digit of the ABEND code

Table 1048. Structure NQQP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
85	(55)	BITSTRING	1	NQQP_ABENDCODELO	Second and third digits of the ABEND code
86	(56)	SIGNED	2	NQQP_ABENDREASON	ABEND Reason Code
88	(58)	CHARACTER	8		Reserved
96	(60)	CHARACTER	1	NQQP_END(0)	
96	(60)	X'60'	0	NQQP_LEN	"*-NQQP"

Table 1049. Structure NQQPRSC\_ENTRY

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQQPRSC_ENTRY	
0	(0)	ADDRESS	4	NQQPRSC_NEXTNQQPRSC@	Pointer to next NqqpRsc entry, 0 indicates end of list
4	(4)	CHARACTER	8	NQQPRSC_TOKEN	For control program use only - defines which entry in the request corresponds to this NqqpRsc_Entry
12	(C)	CHARACTER	8	NQQPRSC_QNAME	Request QName
20	(14)	ADDRESS	4	NQQPRSC_RNAME@	Pointer to Nqqp RNAME
24	(18)	BITSTRING	1	NQQPRSC_SCOPE	Request scope, see Nqqp_kScope values
25	(19)	BITSTRING	1	NQQPRSC_RET(0)	Request RET value, see Nqqp_kRET values Note that this field will be the same for every NqqpRsc entry in the list.
	.... .1..			NQQPRSC_RET1	"X'04'" Maps to PELRET1
	.... ..1.			NQQPRSC_RET2	"X'02'" Maps to PELRET2
	.... ...1			NQQPRSC_RET3	"X'01'" Maps to PELRET3
26	(1A)	BITSTRING	1	NQQPRSC_RNAMELEN	Length of the RName.
27	(1B)	BITSTRING	1	NQQPRSC_ORIGINALSCOPE	Original scope specified on the GRS API. See Nqqp_kScope for possible values.
28	(1C)	CHARACTER	4	NQQPRSC_STATEFLAGS(0)	Resource state flags
28	(1C)	BITSTRING	1	NQQPRSC_STATEFLAGS1(0)	First byte of resource state flags
	1... ....			NQQPRSC_SF1_SHARE	"X'80'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
	.1.. ....			NQQPRSC_SF1_RNLQNO	"X'40'" RNL=N0 was specified on the request
29	(1D)	BITSTRING	1	NQQPRSC_STATEFLAGS2(0)	Second byte of resource flags
	1... ....			NQQPRSC_SF2_INCLUDED	"X'80'" RNL history indicator: The Resource was promoted to SYSTEMS scope. It may have also been demoted back to SYSTEM level. See NqqpRsc_Scope for the final scope.
	.1.. ....			NQQPRSC_SF2_CONVERTED	"X'40'" RNL history indicator: The Resource was converted from a RESERVE to SYSTEMS ENQ only. Note that NqqpRsc_Ucb@ will still be set.
	..1. ....			NQQPRSC_SF2_EXCLUDED	"X'20'" RNL history indicator: The Resource was demoted to SYSTEM scope. Note that the NqqpRsc_Scope is the final scope.
	...1 ....			NQQPRSC_SF2_GLOBAL	"X'10'" Resource request will be processed globally by GRS. Note NqqpRsc_SF2_Global will always be off in GRS=NONE mode even though NqqpRsc_Scope may be SYSTEMS.

Table 1049. Structure NQQPRSC\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... 1...		NQQPRSC_SF2_CONTENTION	"X'08'" Contention was encountered for this request. This bit is set for any request where contention exists or would have been created for the resource. This includes TEST requests where the resource is already owned. Likewise it includes RET=USE and CONTENTIONACT=FAIL requests that encountered a resource that was already owned. Valid for Nqqp_Version of Nqqp_kVersion#5 or higher.
30	(1E)	CHARACTER	2		
32	(20)	ADDRESS	4	NQQPRSC_UCB@	Request UCB address
36	(24)	CHARACTER	4	NQQPRSC_REQUESTFLAGS(0)	Batch request flags
36	(24)	BITSTRING	1	NQQPRSC_REQUESTFLAGS1(0)	First flags byte
		1... ....		NQQPRSC_RF1_SETRETURNCODE	"X'80'" When 1, indicates that a module on the ISGNQXITBATCH exit requested a change to the return code for this conditional/test request
		.1.. ....		NQQPRSC_RF1_CONVERTRESERVE	"X'40'" When 1, indicates that a module on the ISGNQXITBATCH exit requested that this RESERVE be converted to a SYSTEMS ENQ only
		..1. ....		NQQPRSC_RF1_SETREASONCODE	"X'20'" When 1, indicates that a module on the ISGNQXITBATCH exit requested a change to the reason code for this conditional/test request.
37	(25)	BITSTRING	1		Reserved
38	(26)	CHARACTER	2		Reserved
40	(28)	BITSTRING	1	NQQPRSC_RETURNCODE	Return code to the requester, if applicable. Note that for ENQ/RESERVE this will be an ENQ-style return code and for ISGENQ this will be an ISGENQ-style return code which corresponds to the reason in NqqpRsc_ReasonCode. However, a value of 1 indicates that this resource is global and a return code has not yet been determined. This value should be ignored if Nqqp_ABENDCd is non-zero.
41	(29)	CHARACTER	3		Unused
44	(2C)	SIGNED	4	NQQPRSC_REASONCODE(0)	Reason code for ISGENQ request. Only valid when Nqqp_SF1_ISGENQ is set. This value should be ignored if Nqqp_ABENDCd is non-zero.
44	(2C)	SIGNED	2		Internal diag field
46	(2E)	SIGNED	2	NQQPRSC_LORSNCODE	
48	(30)	CHARACTER	1		Reserved (see ISGYNQBP)
49	(31)	CHARACTER	7		Unused
56	(38)	CHARACTER	32	NQQPRSC_RSCTOKEN	Token uniquely identifying the resource. Valid for Nqqp_Version of Nqqp_kVersion#3 or higher and when its value is non-zero
88	(58)	CHARACTER	32	NQQPRSC_ENQTOKEN	Token uniquely identifying the queued request to the resource. Valid for Nqqp_Version of Nqqp_kVersion#3 or higher and when its value is non-zero
120	(78)	CHARACTER	1	NQQPRSC_END(0)	
Nqqp Constants					

Table 1049. Structure NQQPRSC\_ENTRY (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
120	(78)	X'D8D8D7'	0	NQQP_KID	"C'NQQP'" Used to identify control block
120	(78)	X'1'	0	NQQP_KVERSION#1	"1" Version - HBB7705
120	(78)	X'2'	0	NQQP_KVERSION#2	"2" Version - HBB7709
120	(78)	X'3'	0	NQQP_KVERSION#3	"3" Version - HBB7740
120	(78)	X'4'	0	NQQP_KVERSION#4	"4" Version - HBB7750
120	(78)	X'5'	0	NQQP_KVERSION#5	"5" Version - HBB7760
120	(78)	X'5'	0	NQQP_KCURRENTVERSION	"5" Current version
120	(78)	X'1'	0	NQQP_KEXITTYPEQ1	"1" Exit ISGNQXITQUEUED1
120	(78)	X'2'	0	NQQP_KEXITTYPEQ2	"2" Exit ISGNQXITQUEUED2
120	(78)	X'0'	0	NQQP_KSCOPESTEP	"0" Scope=Step
120	(78)	X'1'	0	NQQP_KSCOPESYSTEM	"1" Scope=System
120	(78)	X'2'	0	NQQP_KSCOPESYSTEMS	"2" Scope=Systems
120	(78)	X'0'	0	NQQP_KRETNONE	"0" Ret=None
120	(78)	X'1'	0	NQQP_KRETHAVE	"1" Ret=Have
120	(78)	X'2'	0	NQQP_KRETCHNG	"2" Ret=Chng
120	(78)	X'3'	0	NQQP_KRETUSE	"3" Ret=Use
120	(78)	X'4'	0	NQQP_KRETECB	"4" An ECB is specified for this ENQ request, via either the ECB= parameter on ENQ or the WAITTYPE=ECB parameter on ISGENQ REQUEST=OBTAIN
120	(78)	X'7'	0	NQQP_KRETTEST	"7" Ret=Test
120	(78)	X'1'	0	NQQP_KRCGLOBAL	"1" Return code value when a request is global and not yet been determined
120	(78)	X'60'	0	NQQP_KLENGTH	"96" Maximum length of Nqqp
120	(78)	X'78'	0	NQQPRSC_ENTRY_LEN	"*-NQQPRSC_ENTRY"

Table 1050. Cross Reference for ISGYNQQP

Name	Offset	Hex Tag
NQQP	0	
NQQP_#RESOURCES	4C	
NQQP_ABENDCD	54	
NQQP_ABENDCODE	54	
NQQP_ABENDCODELO	55	
NQQP_ABENDINFORMATION	54	
NQQP_ABENDREASON	56	
NQQP_END	60	
NQQP_EXITTYPE	5	
NQQP_FIRSTNQQPRSC@	50	
NQQP_ID	0	
NQQP_KCURRENTVERSION	78	5
NQQP_KEXITTYPEQ1	78	1
NQQP_KEXITTYPEQ2	78	2
NQQP_KID	78	D8D8D7

Table 1050. Cross Reference for ISGYNQQP (continued)

Name	Offset	Hex Tag
NQQP_KLENGTH	78	60
NQQP_KRCGLOBAL	78	1
NQQP_KRECHNG	78	2
NQQP_KRETECB	78	4
NQQP_KRETHAVE	78	1
NQQP_KRETNONE	78	0
NQQP_KRETTEST	78	7
NQQP_KRETUSE	78	3
NQQP_KSCOPESTEP	78	0
NQQP_KSCOPESYSTEM	78	1
NQQP_KSCOPESYSTEMS	78	2
NQQP_KVERSION#1	78	1
NQQP_KVERSION#2	78	2
NQQP_KVERSION#3	78	3
NQQP_KVERSION#4	78	4
NQQP_KVERSION#5	78	5
NQQP_LEN	60	60
NQQP_RD_AMODE31	3C	80
NQQP_RD_ASCB@	1C	
NQQP_RD_ECB@	40	
NQQP_RD_JOBNAME	2C	
NQQP_RD_MASID	24	
NQQP_RD_MTCB	28	
NQQP_RD_NSI@	3C	
NQQP_RD_REQUESTTOKEN	C	
NQQP_RD_SYSNAME	34	
NQQP_RD_TCB@	20	
NQQP_REQUESTDATA	C	
NQQP_REQUESTFLAGS	48	
NQQP_REQUESTFLAGS1	48	
NQQP_RF1_SETABEND	48	40
NQQP_RF1_SETRSCREQUEST	48	80
NQQP_SF1_AUTHORIZED	44	40
NQQP_SF1_ENQ	44	80
NQQP_SF1_ISGENQ	44	2
NQQP_SF1_ISGENQCONDYES	44	1
NQQP_SF1_LINKAGE	44	8
NQQP_SF1_MATCHTASK	44	20
NQQP_SF1_REDRIREFORRNLCCHANGE	44	4

Table 1050. Cross Reference for ISGYNQQP (continued)

Name	Offset	Hex Tag
NQQP_SF1_RESETMUSTCOMPLETE	44	10
NQQP_SF1_SMCORRM	44	10
NQQP_SF1_STEPMUSTCOMPLETE	44	10
NQQP_SF2_CHANGE	45	20
NQQP_SF2_CHANGETOSHARED	45	2
NQQP_SF2_CONTENTIONACT_FAIL	45	8
NQQP_SF2_ECB	45	4
NQQP_SF2_TEST_YES	45	10
NQQP_STATEFLAGS	44	
NQQP_STATEFLAGS1	44	
NQQP_STATEFLAGS2	45	
NQQP_VERSION	4	
NQQP_WORKAREA@	8	
NQQPRSC_END	78	
NQQPRSC_ENQTOKEN	58	
NQQPRSC_ENTRY	0	
NQQPRSC_ENTRY_LEN	78	78
NQQPRSC_LORSNCODE	2E	
NQQPRSC_NEXTNQQPRSC@	0	
NQQPRSC_ORIGINALSCOPE	1B	
NQQPRSC_QNAME	C	
NQQPRSC_REASONCODE	2C	
NQQPRSC_REQUESTFLAGS	24	
NQQPRSC_REQUESTFLAGS1	24	
NQQPRSC_RET	19	
NQQPRSC_RETURNCODE	28	
NQQPRSC_RET1	19	4
NQQPRSC_RET2	19	2
NQQPRSC_RET3	19	1
NQQPRSC_RF1_CONVERTRESERVE	24	40
NQQPRSC_RF1_SETREASONCODE	24	20
NQQPRSC_RF1_SETRETURNCODE	24	80
NQQPRSC_RNAME@	14	
NQQPRSC_RNAMELEN	1A	
NQQPRSC_RSCTOKEN	38	
NQQPRSC_SCOPE	18	
NQQPRSC_SF1_RNLEQNO	1C	40
NQQPRSC_SF1_SHARE	1C	80
NQQPRSC_SF2_CONTENTION	1D	8

Table 1050. Cross Reference for ISGYNQXP (continued)

Name	Offset	Hex Tag
NQQPRSC_SF2_CONVERTED	1D	40
NQQPRSC_SF2_EXCLUDED	1D	20
NQQPRSC_SF2_GLOBAL	1D	10
NQQPRSC_SF2_INCLUDED	1D	80
NQQPRSC_STATEFLAGS	1C	
NQQPRSC_STATEFLAGS1	1C	
NQQPRSC_STATEFLAGS2	1D	
NQQPRSC_TOKEN	4	
NQQPRSC_UCB@	20	

## ISGYNQXP information

### ISGYNQXP programming interface information

ISGYNQXP is a programming interface.

### ISGYNQXP heading information

<b>Common name:</b>	ENQ Exit Parameter List
<b>Macro ID:</b>	ISGYNQXP
<b>DSECT name:</b>	NQXP
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	NQXP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 215 Key: 0 Residency: Above the 16M line
<b>Size:</b>	LENGTH(NQXP) NQXP -- X'0088' bytes
<b>Created by:</b>	ISGGNX
<b>Pointed to by:</b>	R1 points to the NQXP on entry to the exit routine
<b>Serialization:</b>	N/A

**Function:**

The ENQ Exit Parameter List provides an installation provided exit (installed at the ISGNQXIT or ISGNQXITFAST exit point) the ability to modify attributes of an ENQ, RESERVE or DEQ request. However, on an ISGENQ Request (Release) or (Change) the installation exit will be presented with the request, but any changes to the attributes will not be honored.

The exit routine may change any of the following values in the NQXP. Appropriate changes will be made to the request.

Value	Flag
-----	
Nqxp_CP_QName	Nqxp_RF1_ChangeQName
Nqxp_CP_RName, Nqxp_CP_RNameLen	Nqxp_RF1_ChangeRName (1)
Nqxp_CP_Scope	Nqxp_RF1_ChangeScope
Nqxp_CP_UCB@	Nqxp_RF1_ChangeUCB
(to bypass RNL processing)	Nqxp_RF1_BypassRNLs

(1) When changing the RName, do not alter the virtual storage address value contained in Nqxp\_CP\_RName. Instead, alter the RName at the virtual storage area designated by Nqxp\_CP\_RName@ virtual storage address value. The routine calling the exit provides enough storage to save a 255 byte RName at that address.

The Nqxp\_RequestToken is used to correlate the different exits called by ENQ/DEQ processing. Each request is assigned a unique 8 byte token that will be propagated to each exit point called for the ENQ/DEQ request.

Nqxp\_WorkArea@ points to a 4K work area that can be used as working storage by exit routines. However, this area CANNOT be used to pass information between exit routines or other ENQ/DEQ exit points.

## ISGYNQXP mapping

Table 1051. Structure NQXP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NQXP	
0	(0)	CHARACTER	4	NQXP_ID	Eyecatcher
4	(4)	BITSTRING	1	NQXP_VERSION	Version
5	(5)	CHARACTER	3		Reserved
8	(8)	CHARACTER	40	NQXP_REQUESTDATA(0)	ENQ/DEQ request state information, these values cannot be changed
8	(8)	ADDRESS	4	NQXP_RD_ASCB@	Pointer to requester's ASCB
12	(C)	ADDRESS	4	NQXP_RD_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified
16	(10)	CHARACTER	6	NQXP_RD_VOLSER	VOLSER of requested UCB, see Nqxp_OP_Ucb@. Only valid when Nqxp_SF1_ENQ is set.
22	(16)	SIGNED	2	NQXP_RD_MASID	Request MASID value
24	(18)	ADDRESS	4	NQXP_RD_MTCB	Request MTCB value
28	(1C)	BITSTRING	1	NQXP_RD_RET(0)	Request RET value, see Nqxp_kRET values
		.... .1..		NQXP_RD_RET1	"X'04'" Maps to PELRET1
		.... ..1.		NQXP_RD_RET2	"X'02'" Maps to PELRET2
		.... ...1		NQXP_RD_RET3	"X'01'" Maps to PELRET3
29	(1D)	CHARACTER	3		Reserved



Table 1051. Structure NQXP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	CHARACTER	8	NQXP_RD_JOBNAME	Requester's Jobname
40	(28)	CHARACTER	8	NQXP_RD_SYSNAME	Requester's Sysname
48	(30)	CHARACTER	8	NQXP_STATEFLAGS(0)	ENQ/DEQ request state flags, these values cannot be changed
48	(30)	BITSTRING	1	NQXP_STATEFLAGS1(0)	First byte of state flags
	1... ..			NQXP_SF1_ENQ	"X'80'" When 1, request is ENQ/RESERVE, when 0, request is DEQ. If Nqxp_SF1_ISGENQ is set then when 1, ISGENQ REQUEST=OBTAIN or CHANGE, when 0, REQUEST=RELEASE. See Nqxp_SF2_Change to distinguish between ISGENQ REQUEST=OBTAIN and REQUEST=CHANGE.
	.1.. ..			NQXP_SF1_RNLQNO	"X'40'" RNL=NO was specified on the request: a change to the scope or UCB@ by the exit will not be honored
	..1. ....			NQXP_SF1_AUTHORIZED	"X'20'" Caller is authorized
	...1 ....			NQXP_SF1_SHARE	"X'10'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
	.... 1...			NQXP_SF1_MATCHTASK	"X'08'" When 1, request specified MASID/MTCB
	.... .1..			NQXP_SF1_STEPMUSTCOMPLETE	"X'04'" When 1, ENQ request specified SMC=YES
	.... .1..			NQXP_SF1_RESETMUSTCOMPLETE	"X'04'" When 1, DEQ request specified RMC=YES
	.... ..1.			NQXP_SF1_LINKAGE	"X'02'" When 1, request is PC entered, When 0, request is SVC entered. As ISGENQ requests are all PC entered, this bit will be 1 for all ISGENQ requests.
	.... ...1			NQXP_SF1_ISGENQ	"X'01'" When 1, request is ISGENQ request
49	(31)	BITSTRING	1	NQXP_STATEFLAGS2(0)	State flags byte two
	1... ..			NQXP_SF2_ISGENQCONDYES	"X'80'" When 1, request is a conditional ISGENQ request (ISGENQ COND=YES)
	..1. ....			NQXP_SF2_CHANGE	"X'20'" When 1, request is a change (i.e. ENQ RET=CHNG or ISGENQ REQUEST=CHANGE).
	...1 ....			NQXP_SF2_TEST_YES	"X'10'" When 1, ISGENQ with TEST=YES. When 0, Not ISGENQ with TEST=YES (i.e. TEST=NO if Nqxp_SF1_ISGENQ is set).
	.... 1...			NQXP_SF2_CONTENTIONACT_FAIL	"X'08'" When 1, ISGENQ with CONTENTIONACT=FAIL. When 0, not CONTENTIONACT=FAIL (i.e. CONTENTIONACT=WAIT if Nqxp_SF1_ISGENQ is set and Nqxp_SF2_TEST_YES is off).
	.... .1..			NQXP_SF2_ECB	"X'04'" When 1, ECB keyword specified (i.e. ISGENQ WAITTYPE=ECB or or ENQ with ECB). When 0, No ECB specified (i.e. WAITTYPE=SUSPEND if Nqxp_SF1_ISGENQ is set and Nqxp_SF2_TEST_YES and Nqxp_SF2_CONTENTIONACT_FAIL are off).

Table 1051. Structure NQXP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ..1.		NQXP_SF2_CHANGETOSHARED	"X'02'" When 1, ISGENQ REQUEST=CHANGE specified CONTROL=SHARED. If the request is successful, the requester will be converted from an exclusive owner to a shared owner. Only valid when Nqxp_SF2_Change is 1.
50	(32)	CHARACTER	6		Reserved
56	(38)	CHARACTER	20	NQXP_ORIGINALPARAMETERS(0)	Original parameters specified on the request
56	(38)	CHARACTER	8	NQXP_OP_QNAME	Original request QNAME
64	(40)	ADDRESS	4	NQXP_OP_RNAME@	Pointer to original request RNAME
68	(44)	BITSTRING	1	NQXP_OP_RNAMELEN	Length of original request RNAME. When 0, request is a generic DEQ
69	(45)	BITSTRING	1	NQXP_OP_SCOPE	Original request scope, see Nqxp_kScope values
70	(46)	CHARACTER	2		Reserved
72	(48)	ADDRESS	4	NQXP_OP_UCB@	Pointer to original request UCB (set for RESERVE). Only valid when Nqxp_SF1_ENQ is set
76	(4C)	CHARACTER	4	NQXP_REQUESTFLAGS(0)	Request flags
76	(4C)	BITSTRING	1	NQXP_REQUESTFLAGS1(0)	First byte of request flags
		1... ....		NQXP_RF1_BYPASSRNL	"X'80'" When 1, request that RNL processing is to be bypassed
		.1.. ....		NQXP_RF1_CHANGEQNAME	"X'40'" When 1, request that the QNAME be changed
		..1. ....		NQXP_RF1_CHANGENAME	"X'20'" When 1, request that the RNAME be changed
		...1 ....		NQXP_RF1_CHANGESCOPE	"X'10'" When 1, request that the Scope be changed
		.... 1...		NQXP_RF1_CHANGEUCB@	"X'08'" When 1, request that the UCB address be changed
77	(4D)	CHARACTER	3		Reserved
80	(50)	CHARACTER	4		Reserved
84	(54)	CHARACTER	20	NQXP_CURRENTPARAMETERS(0)	Parameters as changed by the exit routines
84	(54)	CHARACTER	8	NQXP_CP_QNAME	Current request QNAME
92	(5C)	ADDRESS	4	NQXP_CP_RNAME@	Pointer to current request RNAME
96	(60)	BITSTRING	1	NQXP_CP_RNAMELEN	Length of current request RNAME
97	(61)	BITSTRING	1	NQXP_CP_SCOPE	Current request scope, see Nqxp_kScope values
98	(62)	CHARACTER	2		Reserved
100	(64)	ADDRESS	4	NQXP_CP_UCB@	Current request UCB address
104	(68)	CHARACTER	8	NQXP_REQUESTDATA2(0)	More request data
104	(68)	ADDRESS	4	NQXP_RD_NSI@(0)	Requester's next sequential instruction address, when ENQ/DEQ ends, this is address of the next instruction in the calling program that will be executed
		1... ....		NQXP_RD_AMODE31	"X'80'" When set, ENQ caller is AMODE 31
108	(6C)	CHARACTER	4		Reserved
112	(70)	ADDRESS	4	NQXP_WORKAREA@	Pointer to a 4K work area, usable by exit routines
116	(74)	CHARACTER	16	NQXP_REQUESTTOKEN	Unique token for this request, all exits driven for this request can be identified by this token

Table 1051. Structure NQXP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
132	(84)	CHARACTER	4		Reserved
136	(88)	CHARACTER	1	NQXP_END(0)	End of NQXP
NQXP Constants					
136	(88)	X'D8E7D7'	0	NQXP_KID	"C'NQXP'" Used to identify control block
136	(88)	X'0'	0	NQXP_KVERSION#0	"0" Version 0 - base
136	(88)	X'1'	0	NQXP_KVERSION#1	"1" Version 1 - ISGNQXITFAST support available
136	(88)	X'2'	0	NQXP_KVERSION#2	"2" Version constant - HBB7709
136	(88)	X'3'	0	NQXP_KVERSION#3	"3" Version constant- HBB7750
136	(88)	X'3'	0	NQXP_KCURRENTVERSION	"3" Current version
136	(88)	X'1'	0	NQXP_KSCOPESYSTEM	"1" Scope=System
136	(88)	X'2'	0	NQXP_KSCOPESYSTEMS	"2" Scope=Systems
136	(88)	X'2'	0	NQXP_KSCOPESYSPLEX	"2" Scope=Sysplex
136	(88)	X'0'	0	NQXP_KRETNONE	"0" Ret=None
136	(88)	X'1'	0	NQXP_KRETHAVE	"1" Ret=Have
136	(88)	X'2'	0	NQXP_KRETCHNG	"2" Ret=Chng
136	(88)	X'3'	0	NQXP_KRETUSE	"3" Ret=Use
136	(88)	X'7'	0	NQXP_KRETTEST	"7" Ret=Test
136	(88)	X'100'	0	NQXP_KRNAMELEN	"256" Maximum RName length
136	(88)	X'288'	0	NQXP_KLENGTH	"648" Maximum length Nqxp, parameter list and 2 RNames
136	(88)	X'88'	0	NQXP_LEN	"*-NQXP"

Table 1052. Cross Reference for ISGYNQXP

Name	Offset	Hex	Tag
NQXP	0		
NQXP_CP_QNAME	54		
NQXP_CP_RNAME@	5C		
NQXP_CP_RNAMELEN	60		
NQXP_CP_SCOPE	61		
NQXP_CP_UCB@	64		
NQXP_CURRENTPARAMETERS	54		
NQXP_END	88		
NQXP_ID	0		
NQXP_KCURRENTVERSION	88		3
NQXP_KID	88	D8E7D7	
NQXP_KLENGTH	88		288
NQXP_KRETCHNG	88		2
NQXP_KRETHAVE	88		1
NQXP_KRETNONE	88		0
NQXP_KRETTEST	88		7

Table 1052. Cross Reference for ISGYNQXP (continued)

Name	Offset	Hex Tag
NQXP_KRETUSE	88	3
NQXP_KRNAMELEN	88	100
NQXP_KSCOPESYSPLX	88	2
NQXP_KSCOPESYSTEM	88	1
NQXP_KSCOPESYSTEMS	88	2
NQXP_KVERSION#0	88	0
NQXP_KVERSION#1	88	1
NQXP_KVERSION#2	88	2
NQXP_KVERSION#3	88	3
NQXP_LEN	88	88
NQXP_OP_QNAME	38	
NQXP_OP_RNAME@	40	
NQXP_OP_RNAMELEN	44	
NQXP_OP_SCOPE	45	
NQXP_OP_UCB@	48	
NQXP_ORIGINALPARAMETERS	38	
NQXP_RD_AMODE31	68	80
NQXP_RD_ASCB@	8	
NQXP_RD_JOBNAME	20	
NQXP_RD_MASID	16	
NQXP_RD_MTCB	18	
NQXP_RD_NSI@	68	
NQXP_RD_RET	1C	
NQXP_RD_RET1	1C	4
NQXP_RD_RET2	1C	2
NQXP_RD_RET3	1C	1
NQXP_RD_SYSNAME	28	
NQXP_RD_TCB@	C	
NQXP_RD_VOLSER	10	
NQXP_REQUESTDATA	8	
NQXP_REQUESTDATA2	68	
NQXP_REQUESTFLAGS	4C	
NQXP_REQUESTFLAGS1	4C	
NQXP_REQUESTTOKEN	74	
NQXP_RF1_BYPASSRNLS	4C	80
NQXP_RF1_CHANGEQNAME	4C	40
NQXP_RF1_CHANGENAME	4C	20
NQXP_RF1_CHANGESCOPE	4C	10
NQXP_RF1_CHANGEUCB@	4C	8

Table 1052. Cross Reference for ISGYNQXP (continued)

Name	Offset	Hex Tag
NQXP_SF1_AUTHORIZED	30	20
NQXP_SF1_ENQ	30	80
NQXP_SF1_ISGENQ	30	1
NQXP_SF1_LINKAGE	30	2
NQXP_SF1_MATCHTASK	30	8
NQXP_SF1_RESETMUSTCOMPLETE	30	4
NQXP_SF1_RNLEQNO	30	40
NQXP_SF1_SHARE	30	10
NQXP_SF1_STEPMUSTCOMPLETE	30	4
NQXP_SF2_CHANGE	31	20
NQXP_SF2_CHANGETOSHARED	31	2
NQXP_SF2_CONTENTIONACT_FAIL	31	8
NQXP_SF2_ECB	31	4
NQXP_SF2_ISGENQCONDYES	31	80
NQXP_SF2_TEST_YES	31	10
NQXP_STATEFLAGS	30	
NQXP_STATEFLAGS1	30	
NQXP_STATEFLAGS2	31	
NQXP_VERSION	4	
NQXP_WORKAREA@	70	

## ISGYQCBP information

### ISGYQCBP programming interface information

ISGYQCBP is a programming interface.

### ISGYQCBP heading information

<b>Common name:</b>	QCB Destroy Exit Parameter List
<b>Macro ID:</b>	ISGYQCBP
<b>DSECT name:</b>	QCBP
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	QCBP Offset: 0 Length: 4
<b>Storage attributes:</b>	Subpool: 127 in the GRS private area Key: 0 Residency: Above 16M line
<b>Size:</b>	QCBP -- X'0050' bytes
<b>Created by:</b>	ISGGNX

**Pointed to by:** R1 points to the QCBP on entry to the exit routine

**Serialization:** N/A

**Function:** The QCBP parameter list describes a resource for which the last requester on this system has been DEQueued. The exit is only called for SCOPE=SYSTEM(S) resources that are not global.

## ISGYQCBP mapping

Table 1053. Structure QCBP

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	QCBP	
0	(0)	CHARACTER	40	QCBP_BASIC(0)	QCBP Basic Section
0	(0)	CHARACTER	4	QCBP_ID	Eyecatcher
4	(4)	BITSTRING	1	QCBP_VERSION	QCBP version
5	(5)	CHARACTER	3		Reserved
8	(8)	ADDRESS	4	QCBP_RNAME@	Pointer to RName
12	(C)	CHARACTER	14		Reserved
26	(1A)	BITSTRING	1	QCBP_RFLGS(0)	Resource description flags
		1... ....		QCBP_SYS	"X'80'" SCOPE=SYSTEM
		.1.. ....		QCBP_SYSS	"X'40'" SCOPE=SYSTEMS
27	(1B)	BITSTRING	1	QCBP_ER_FLAGS(0)	***** ***** ** ***** Exit Caching: The following bits are used to determine if the ISGENDOFLQCB exit should be called again for a particular resource. The protocol for setting these bits is as described: To indicate the EndofLqcb exit should be called you must code: 0I Qcbp_ER_Flags,Qcbp_ER_InterestInLQCB+ Qcbp_ER_CallLQCBForThisResource To indicate the EndofLqcb exit should NOT be called you must code: 0I Qcbp_ER_Flags,Qcbp_ER_InterestInLQCB Turning on these bits in any other combination other than what is describe will result in a call to the ISGEndoflqcb exit. NOTE: Adding or activating an ISGENDOFLQCB exit will result in the clearing of the GRS Exit Cache. ***** ***** ***** ** *****
		1... ....		QCBP_ER_INTERESTINLQCB	"X'80'"
		.1.. ....		QCBP_ER_CALLLQCBFORTHISRESOURCE	"X'40'"
28	(1C)	SIGNED	2	QCBP_RNAML	RName length
30	(1E)	CHARACTER	2		Reserved
32	(20)	CHARACTER	8	QCBP_QNAME	Resource QName
40	(28)	ADDRESS	4	QCBP_WORKAREA@	Pointer to a 4K work area, usable by exit routines
44	(2C)	CHARACTER	4		Reserved
48	(30)	CHARACTER	32	QCBP_RSCTOKEN	Token unique to this resource pending deletion. Valid for Qcbp_Version of Qcbp_kVersion#2 or higher
80	(50)	CHARACTER	1	QCBP_END(0)	
QCBP Constants					

Table 1053. Structure QCBP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
80	(50)	X'C3C2D7'	0	QCBP_KID	"C'QCBP'" Used to identify control block
80	(50)	X'1'	0	QCBP_KVERSION#1	"1" Version - HBB7705
80	(50)	X'2'	0	QCBP_KVERSION#2	"2" Version - HBB7740
80	(50)	X'2'	0	QCBP_KCURRENTVERSION	"2" Current version
80	(50)	X'E0'	0	QCBP_KRFLGSMASK	"224" Mask to remove extraneous data from QCBRFLGS
80	(50)	X'150'	0	QCBP_KLENGTH	"336" Maximum of length Qcbp parameter list
80	(50)	X'50'	0	QCBP_LEN	"*-QCBP"

Table 1054. Cross Reference for ISGYQCBP

Name	Offset	Hex	Tag
QCBP	0		
QCBP_BASIC	0		
QCBP_END	50		
QCBP_ER_CALLLQCBFORTHISRESOURCE	1B		40
QCBP_ER_FLAGS	1B		
QCBP_ER_INTERESTINLQCB	1B		80
QCBP_ID	0		
QCBP_KCURRENTVERSION	50		2
QCBP_KID	50	C3C2D7	
QCBP_KLENGTH	50		150
QCBP_KRFLGSMASK	50	E0	
QCBP_KVERSION#1	50		1
QCBP_KVERSION#2	50		2
QCBP_LEN	50		50
QCBP_QNAME	20		
QCBP_RFLGS	1A		
QCBP_RNAME@	8		
QCBP_RNAML	1C		
QCBP_RSCTOKEN	30		
QCBP_SYS	1A		80
QCBP_SYSS	1A		40
QCBP_VERSION	4		
QCBP_WORKAREA@	28		

## ISGYQUAA information

### ISGYQUAA programming interface information

ISGYQUAA is a programming interface.

## ISGYQUAA heading information

<b>Common name:</b>	ISGQUERY Answer Area
<b>Macro ID:</b>	ISGYQUAA
<b>DSECT name:</b>	ISGYQUAAHdr ISGYQUAARs ISGYQUAARsx ISGYQUAARq ISGYQUAARqx ISGYQUAASys ISGYQUAASp
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	ISGYQUAA Offset: X'0000' bytes Length: X'0008' bytes
<b>Storage attributes:</b>	Subpool: User-supplied Key: User-supplied Residency: User-supplied
<b>Size:</b>	Variable ISGYQUAAHDRBASE -- X'0028' bytes ISGYQUAARSBASE -- X'0050' bytes ISGYQUAARSXBASE -- X'0030' bytes ISGYQUAARQBASE -- X'0040' bytes ISGYQUAARQXBASE -- X'0068' bytes ISGYQUAASYSBASE -- X'0028' bytes ISGYQUAASPBASE -- X'0010' bytes ISGYQUAARSXFULL2 -- X'0030' bytes ISGYQUAARQXFULL2 -- X'0088' bytes ISGYQUAARQXFULL -- X'0068' bytes ISGYQUAAHDR -- X'0028' bytes ISGYQUAARS -- X'0050' bytes ISGYQUAARSX -- X'0030' bytes ISGYQUAARQ -- X'0040' bytes ISGYQUAARQX -- X'0088' bytes ISGYQUAASYS -- X'0028' bytes ISGYQUAASP -- X'0010' bytes
<b>Created by:</b>	Created by user and passed as parameter on ANSAREA keyword for ISGQUERY macro.
<b>Pointed to by:</b>	ANSAREA_ADDR3164 field in ISGQUERY parameter list
<b>Serialization:</b>	None required



**Function:**

Maps the data returned by the ISGQUERY macro.

\*\*\*\*\*

NOTE: This mapping macro is now obsolete. All ISGQUERY enhancements at HBB7780 and higher are supported by ISGYQUAC.

\*\*\*\*\*

This data represents an unserialized view of system resources. The ISGQUERY returns the ISGYQUAAHdr plus the records for each resource and requesters that match the query request. The answer area written for REQINFO=QSCAN queries is in the following format. ISGYQUAARqx records are only included if ANSDetail=FULL|FULL2|FULL3. ISGYQUAARsx records are only included if ANSDetail=FULL2|FULL3.

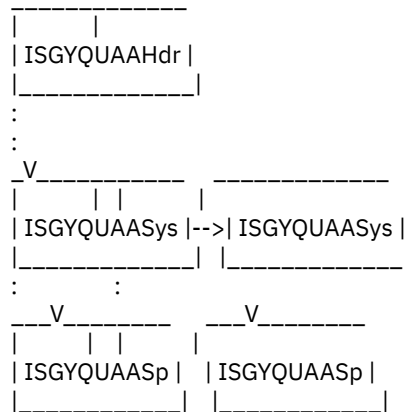
Note: Use addresses to locate each record-- the offset to the next record is not guaranteed because the length and order of the records may change.

```

-----
|      |
| ISGYQUAAHdr |
|-----|
:
:
: V-----
|      |-----|-----|
| ISGYQUAARs |-->|   |-->|   |--> ...
|-----| | ISGYQUAARq | | ISGYQUAARq |
: : : |-----| |-----|
: : V : :
: : RNAME : : V : : V-----
: : V-----| | |
: : | | ISGYQUAARqx | | ISGYQUAARqx |
: : ISGYQUAARsx | |-----| |-----|
: : |-----| : :
: : V V
: : ORIG. User
: : RNAME Data
V-----
|      |-----|-----|
| ISGYQUAARs |-->|   |-->|   |--> ...
|-----| | ISGYQUAARq | | ISGYQUAARq |
: : : |-----| |-----|
: : V : :
: : RNAME : : V : : V-----
: : V-----| | |
: : | | ISGYQUAARqx | | ISGYQUAARqx |
: : ISGYQUAARsx | |-----| |-----|
: : |-----| : :
: : V V
: : ORIG. User
V : : RNAME Data
---
```

The answer area written for REQINFO=ENQSTATS queries is in

the following format. Note: Use addresses to locate each record-- the offset to the next record is not guaranteed because the length and order of the records may change. length and order of the records may change.



## ISGYQUAA mapping

Table 1055. Structure ISGYQUAAHDR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAAHDR	Resource Data Record
0	(0)	CHARACTER	40	ISGYQUAAHDRMAX(0)	The max length map
0	(0)	CHARACTER	8	ISGYQUAAHDRID	
8	(8)	SIGNED	2	ISGYQUAAHDRVERSION	
10	(A)	SIGNED	2	ISGYQUAAHDRREQINFO	
12	(C)	SIGNED	4	ISGYQUAAHDRNUMRECORDS	
16	(10)	ADDRESS	8	ISGYQUAAHDRFIRSTRECORD(0)	
16	(10)	CHARACTER	4		
20	(14)	ADDRESS	4	ISGYQUAAHDRFIRSTRECORD31	
24	(18)	SIGNED	8	ISGYQUAAHRTOTALLEN(0)	
24	(18)	CHARACTER	4		
28	(1C)	SIGNED	4	ISGYQUAAHRTOTALLEN31	
32	(20)	CHARACTER	8		
ISGYQUAAHDR Constants					
32	(20)	X'E2C7E8'	0	ISGYQUAAHDR_KID_0T03	"C'ISGY'" This is the first 4-byte segment of an 8-byte constant.
32	(20)	X'E4C1C1'	0	ISGYQUAAHDR_KID_4T07	"C'QUAA'" This is the second 4-byte segment of an 8-byte constant.
32	(20)	X'1'	0	ISGYQUAAHDR_KMAXVERSION	"1"
32	(20)	X'1'	0	ISGYQUAAHDR_KHBB7709	"1"
32	(20)	X'1'	0	ISGYQUAAHDR_KVERSION1	"1"
32	(20)	X'1'	0	ISGYQUAAHDR_KREQINFO_QSCAN	"1"
32	(20)	X'2'	0	ISGYQUAAHDR_KREQINFO_ENQSTATS	"2"
32	(20)	X'28'	0	ISGYQUAAHDR_LEN	"*-ISGYQUAAHDR"

Table 1056. Structure ISGYQUAARS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARS	Resource Data Record
0	(0)	CHARACTER	80	ISGYQUAARSMAX(0)	The max length map
0	(0)	SIGNED	2	ISGYQUAARSVERSION	
2	(2)	BITSTRING	1	ISGYQUAARSFLAGS1(0)	
		1... ..		ISGYQUAARSRQSOMITTED	"X'80' "
		.1... ..		ISGYQUAARSRSXVALID	"X'40' "
3	(3)	CHARACTER	5		
8	(8)	ADDRESS	8	ISGYQUAARSNEXT(0)	
8	(8)	CHARACTER	4		
12	(C)	ADDRESS	4	ISGYQUAARSNEXT31	
16	(10)	ADDRESS	8	ISGYQUAARSFIRSTRQ(0)	
16	(10)	CHARACTER	4		
20	(14)	ADDRESS	4	ISGYQUAARSFIRSTRQ31	
24	(18)	ADDRESS	8	ISGYQUAARSNAME(0)	
24	(18)	CHARACTER	4		
28	(1C)	ADDRESS	4	ISGYQUAARSNAME31	
32	(20)	CHARACTER	8	ISGYQUAARSQNAME	
40	(28)	SIGNED	4	ISGYQUAARSNUMRQ	
44	(2C)	SIGNED	4	ISGYQUAARSTOTALRQ	
48	(30)	SIGNED	4	ISGYQUAARSNUMOWNERS	
52	(34)	SIGNED	4	ISGYQUAARSNUMWAITERS	
56	(38)	SIGNED	4	ISGYQUAARSNUMSWAITERS	
60	(3C)	SIGNED	4	ISGYQUAARSNUMEUSERS	
64	(40)	SIGNED	4	ISGYQUAARSNUMSUSERS	
68	(44)	SIGNED	2	ISGYQUAARSNAMELEN	
70	(46)	BITSTRING	1	ISGYQUAARSSCOPE	
71	(47)	CHARACTER	1		
72	(48)	ADDRESS	8	ISGYQUAARSRSX(0)	
72	(48)	CHARACTER	4		
76	(4C)	ADDRESS	4	ISGYQUAARSRSX31	

## ISGYQUAARS Constants

76	(4C)	X'2'	0	ISGYQUAARS_KMAXVERSION	"2"
76	(4C)	X'1'	0	ISGYQUAARS_KHBB7709	"1"
76	(4C)	X'2'	0	ISGYQUAARS_KHBB7740	"2"
76	(4C)	X'1'	0	ISGYQUAARS_KVERSION1	"1"
76	(4C)	X'2'	0	ISGYQUAARS_KVERSION2	"2"
76	(4C)	X'50'	0	ISGYQUAARS_LEN	"*-ISGYQUAARS"

Table 1057. Structure ISGYQUAARSX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARSX	Resource Data Record Ext.
0	(0)	CHARACTER	48	ISGYQUAARSXMAX(0)	The max length map
0	(0)	SIGNED	2	ISGYQUAARSXVERSION	
2	(2)	BITSTRING	1	ISGYQUAARSXFLAGS1(0)	

Table 1057. Structure ISGYQUAARSX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		ISGYQUAARSXRSTOKENVALID	"X'80' "
3	(3)	CHARACTER	1		
4	(4)	CHARACTER	32	ISGYQUAARSXRSTOKEN	
36	(24)	CHARACTER	12		
ISGYQUAARSx Constants					
36	(24)	X'1'	0	ISGYQUAARSX_KMAXVERSION	"1"
36	(24)	X'1'	0	ISGYQUAARSX_KHBB7740	"1"
36	(24)	X'1'	0	ISGYQUAARSX_KVERSION1	"1"
36	(24)	X'30'	0	ISGYQUAARSX_LEN	"*-ISGYQUAARSX"

Table 1058. Structure ISGYQUAARQ

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARQ	Requester Data Record
0	(0)	CHARACTER	64	ISGYQUAARQMAX(0)	The max length map
0	(0)	SIGNED	2	ISGYQUAARQVERSION	
2	(2)	BITSTRING	1	ISGYQUAARQFLAGS1(0)	
		1... ....		ISGYQUAARQCONTROL	"X'80' "
		.1.. ....		ISGYQUAARQRESERVE	"X'40' "
		..1. ....		ISGYQUAARQRESERVECONVERTED	"X'20' "
		...1 ....		ISGYQUAARQSYNCHRES	"X'10' "
		.... 1...		ISGYQUAARQOWNER	"X'08' "
		.... .1..		ISGYQUAARQMATU	"X'04' "
		.... ..1.		ISGYQUAARQPOSTED	"X'02' "
		.... ...1		ISGYQUAARQMISC64VALID	"X'01' "
3	(3)	BITSTRING	1	ISGYQUAARQFLAGS2(0)	
		1... ....		ISGYQUAARQRQXVALID	"X'80' "
4	(4)	ADDRESS	4	ISGYQUAARQTCB	
8	(8)	ADDRESS	8	ISGYQUAARQNEXT(0)	
8	(8)	CHARACTER	4		
12	(C)	ADDRESS	4	ISGYQUAARQNEXT31	
16	(10)	ADDRESS	8	ISGYQUAARQRQX(0)	
16	(10)	CHARACTER	4		
20	(14)	ADDRESS	4	ISGYQUAARQRQX31	
24	(18)	CHARACTER	32	ISGYQUAARQENQTOKEN	
56	(38)	CHARACTER	8		
ISGYQUAARQ Constants					
56	(38)	X'1'	0	ISGYQUAARQ_KMAXVERSION	"1"
56	(38)	X'1'	0	ISGYQUAARQ_KHBB7709	"1"
56	(38)	X'1'	0	ISGYQUAARQ_KVERSION1	"1"
56	(38)	X'40'	0	ISGYQUAARQ_LEN	"*-ISGYQUAARQ"

Table 1059. Structure ISGYQUAARQX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARQX	Requester Data Record Extension
0	(0)	CHARACTER	136	ISGYQUAARQXMAX(0)	The max len map
0	(0)	CHARACTER	104	ISGYQUAARQXFULL2FULL(0)	
0	(0)	SIGNED	2	ISGYQUAARQXVERSION	
2	(2)	BITSTRING	1	ISGYQUAARQXFLAGS1(0)	
		1... ....		ISGYQUAARQXNQITCHANGED	"X'80' "
		.1.. ....		ISGYQUAARQXBATCHCHANGED	"X'40' "
		..1. ....		ISGYQUAARQXRNLCHANGED	"X'20' "
		...1 ....		ISGYQUAARQXORIGQNAMEVALID	"X'10' "
		.... 1...		ISGYQUAARQXORIGRNAMEVALID	"X'08' "
		.... .1..		ISGYQUAARQXORIGUCB@VALID	"X'04' "
		.... ..1.		ISGYQUAARQXORIGSCOPEVALID	"X'02' "
		.... ...1		ISGYQUAARQXSERVICEASIDVALID	"X'01' "
3	(3)	BITSTRING	1	ISGYQUAARQXFLAGS2(0)	
		1... ....		ISGYQUAARQXMUSTCOMPLETE	"X'80' "
		.1.. ....		ISGYQUAARQXAUTHORIZED	"X'40' "
		..1. ....		ISGYQUAARQXALTSEREXTENDED	"X'20' "
		...1 ....		ISGYQUAARQXMATCHINGTASK	"X'10' "
		.... 1...		ISGYQUAARQXECSREQUEST	"X'08' "
		.... .1..		ISGYQUAARQXUSERDATAVALID	"X'04' "
		.... ..1.		ISGYQUAARQXUSERDATAOMITTED	"X'02' "
4	(4)	CHARACTER	2		
6	(6)	CHARACTER	42	ISGYQUAARQXREQUESTERDATA(0)	
6	(6)	SIGNED	2	ISGYQUAARQXASID	
8	(8)	CHARACTER	8	ISGYQUAARQXSTOKEN	
16	(10)	CHARACTER	16	ISGYQUAARQXTTOKEN	
32	(20)	CHARACTER	8	ISGYQUAARQXJOBNAME	
40	(28)	CHARACTER	8	ISGYQUAARQXSYSNAME	
48	(30)	ADDRESS	4	ISGYQUAARQXMTCB	
52	(34)	SIGNED	2	ISGYQUAARQXMASID	
54	(36)	SIGNED	2	ISGYQUAARQXSERVICEASID	
56	(38)	ADDRESS	4	ISGYQUAARQXECS(0)	
56	(38)	ADDRESS	4	ISGYQUAARQXSVRB	
60	(3C)	ADDRESS	4	ISGYQUAARQXUCB	
64	(40)	CHARACTER	4	ISGYQUAARQXDEVICENUM	
68	(44)	CHARACTER	4		
72	(48)	CHARACTER	8	ISGYQUAARQXORIGQNAME	
80	(50)	ADDRESS	8	ISGYQUAARQXORIGRNAME(0)	
80	(50)	CHARACTER	4		
84	(54)	ADDRESS	4	ISGYQUAARQXORIGRNAME31	
88	(58)	ADDRESS	4	ISGYQUAARQXORIGUCB@	
92	(5C)	BITSTRING	1	ISGYQUAARQXORIGRNAMELEN	
93	(5D)	BITSTRING	1	ISGYQUAARQXORIGSCOPE	
94	(5E)	SIGNED	2	ISGYQUAARQXUSERDATALEN	

Table 1059. Structure ISGYQUAARQX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
96	(60)	ADDRESS	8	ISGYQUAARQXUSERDATA(0)	
96	(60)	CHARACTER	4		
100	(64)	ADDRESS	4	ISGYQUAARQXUSERDATA31	
104	(68)	CHARACTER	16	ISGYQUAARQXENQTIME	
120	(78)	CHARACTER	16		
ISGYQUAARQX Constants					
120	(78)	X'2'	0	ISGYQUAARQX_KMAXVERSION	"2"
120	(78)	X'1'	0	ISGYQUAARQX_KHBB7709	"1"
120	(78)	X'2'	0	ISGYQUAARQX_KHBB7740	"2"
120	(78)	X'1'	0	ISGYQUAARQX_KVERSION1	"1"
120	(78)	X'2'	0	ISGYQUAARQX_KVERSION2	"2"
120	(78)	X'88'	0	ISGYQUAARQX_LEN	"*-ISGYQUAARQX"

Table 1060. Structure ISGYQUAASYS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAASYS	REQINFO=ENQSTATS system data
0	(0)	CHARACTER	40	ISGYQUAASYSMAX(0)	The max length map
0	(0)	SIGNED	2	ISGYQUAASYSVERSION	
2	(2)	BITSTRING	1	ISGYQUAASYSFLAGS1(0)	
		1... ..		ISGYQUAASYSAUTHORIZED	"X'80' "
3	(3)	CHARACTER	5		
8	(8)	ADDRESS	8	ISGYQUAASYSNEXT(0)	
8	(8)	CHARACTER	4		
12	(C)	ADDRESS	4	ISGYQUAASYSNEXT31	
16	(10)	ADDRESS	8	ISGYQUAASYSASP(0)	
16	(10)	CHARACTER	4		
20	(14)	ADDRESS	4	ISGYQUAASYSASP31	
24	(18)	CHARACTER	8	ISGYQUAASYSPEAKENQDATA(0)	
24	(18)	SIGNED	4	ISGYQUAASYSPEAKENQCOUNT	
28	(1C)	SIGNED	2	ISGYQUAASYSPEAKENQASID	
30	(1E)	CHARACTER	2		
32	(20)	SIGNED	4	ISGYQUAASYSSENQMAX	
36	(24)	CHARACTER	4		
ISGYQUAASys Constants					
36	(24)	X'1'	0	ISGYQUAASYS_KMAXVERSION	"1"
36	(24)	X'1'	0	ISGYQUAASYS_KHBB7730	"1"
36	(24)	X'1'	0	ISGYQUAASYS_KVERSION1	"1"
36	(24)	X'28'	0	ISGYQUAASYS_LEN	"*-ISGYQUAASYS"

Table 1061. Structure ISGYQUAASP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAASP	REQINFO=ENQSTATS address space specific data

Table 1061. Structure ISGYQUAASP (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	CHARACTER	16	ISGYQUAASPMAX(0)	The max length map
0	(0)	SIGNED	2	ISGYQUAASPVERSION	
2	(2)	CHARACTER	2		
4	(4)	SIGNED	4	ISGYQUAASPCURRENQCOUNT	
8	(8)	SIGNED	4	ISGYQUAASPPEAKENQCOUNT	
12	(C)	SIGNED	4	ISGYQUAASPENQMAX	
ISGYQUAASp Constants					
12	(C) X'1'		0	ISGYQUAASP_KMAXVERSION	"1"
12	(C) X'1'		0	ISGYQUAASP_KHBB7730	"1"
12	(C) X'1'		0	ISGYQUAASP_KVERSION1	"1"
12	(C) X'20'		0	ISGYQUAAUSERDATA_KINITIALLEN	"32" The initial length of ISGYQUAAUserdata
12	(C) X'10'		0	ISGYQUAASP_LEN	"*-ISGYQUAASP"

Table 1062. Cross Reference for ISGYQUAA

Name	Offset	Hex Tag
ISGYQUAAHDR	0	
ISGYQUAAHDR_KHBB7709	20	1
ISGYQUAAHDR_KID_0T03	20	E2C7E8
ISGYQUAAHDR_KID_4T07	20	E4C1C1
ISGYQUAAHDR_KMAXVERSION	20	1
ISGYQUAAHDR_KREQINFO_ENQSTATS	20	2
ISGYQUAAHDR_KREQINFO_QSCAN	20	1
ISGYQUAAHDR_KVERSION1	20	1
ISGYQUAAHDR_LEN	20	28
ISGYQUAAHDRFIRSTRECORD	10	
ISGYQUAAHDRFIRSTRECORD31	14	
ISGYQUAAHDRID	0	
ISGYQUAAHDRMAX	0	
ISGYQUAAHDRNUMRECORDS	C	
ISGYQUAAHDRREQINFO	A	
ISGYQUAAHDRTOTALLEN	18	
ISGYQUAAHDRTOTALLEN31	1C	
ISGYQUAAHDRVERSION	8	
ISGYQUAARQ	0	
ISGYQUAARQ_KHBB7709	38	1
ISGYQUAARQ_KMAXVERSION	38	1
ISGYQUAARQ_KVERSION1	38	1
ISGYQUAARQ_LEN	38	40

Table 1062. Cross Reference for ISGYQUAA (continued)

Name	Offset	Hex Tag
ISGYQUAARQCONTROL	2	80
ISGYQUAARQENQTOKEN	18	
ISGYQUAARQFLAGS1	2	
ISGYQUAARQFLAGS2	3	
ISGYQUAARQMATU	2	4
ISGYQUAARQMAX	0	
ISGYQUAARQMISC64VALID	2	1
ISGYQUAARQNEXT	8	
ISGYQUAARQNEXT31	C	
ISGYQUAARQOWNER	2	8
ISGYQUAARQPOSTED	2	2
ISGYQUAARQRESERVE	2	40
ISGYQUAARQRESERVECONVERTED	2	20
ISGYQUAARQRQX	10	
ISGYQUAARQRQXVALID	3	80
ISGYQUAARQRQX31	14	
ISGYQUAARQSYNCHRES	2	10
ISGYQUAARQTCB	4	
ISGYQUAARQVERSION	0	
ISGYQUAARQX	0	
ISGYQUAARQX_KHBB7709	78	1
ISGYQUAARQX_KHBB7740	78	2
ISGYQUAARQX_KMAXVERSION	78	2
ISGYQUAARQX_KVERSION1	78	1
ISGYQUAARQX_KVERSION2	78	2
ISGYQUAARQX_LEN	78	88
ISGYQUAARQXALTSEREXTENDED	3	20
ISGYQUAARQXASID	6	
ISGYQUAARQXAUTHORIZED	3	40
ISGYQUAARQXBATCHCHANGED	2	40
ISGYQUAARQXDEVICENUM	40	
ISGYQUAARQXECB	38	
ISGYQUAARQXECBREQUEST	3	8
ISGYQUAARQXENQTIME	68	
ISGYQUAARQXFLAGS1	2	
ISGYQUAARQXFLAGS2	3	
ISGYQUAARQXFULL2FULL	0	
ISGYQUAARQXJOBNAME	20	
ISGYQUAARQXMASID	34	



Table 1062. Cross Reference for ISGYQUAA (continued)

Name	Offset	Hex Tag
ISGYQUAARQXMATCHINGTASK	3	10
ISGYQUAARQXMAX	0	
ISGYQUAARQXMTCB	30	
ISGYQUAARQXMUSTCOMPLETE	3	80
ISGYQUAARQXNQXITCHANGED	2	80
ISGYQUAARQXORIGQNAME	48	
ISGYQUAARQXORIGQNAMEVALID	2	10
ISGYQUAARQXORIGRNAME	50	
ISGYQUAARQXORIGRNAMELEN	5C	
ISGYQUAARQXORIGRNAMEVALID	2	8
ISGYQUAARQXORIGRNAME31	54	
ISGYQUAARQXORIGSCOPE	5D	
ISGYQUAARQXORIGSCOPEVALID	2	2
ISGYQUAARQXORIGUCB@	58	
ISGYQUAARQXORIGUCB@VALID	2	4
ISGYQUAARQXREQUESTERDATA	6	
ISGYQUAARQXRNLCHANGED	2	20
ISGYQUAARQXSERVICEASID	36	
ISGYQUAARQXSERVICEASIDVALID	2	1
ISGYQUAARQXSTOKEN	8	
ISGYQUAARQXSVRB	38	
ISGYQUAARQXSYSNAME	28	
ISGYQUAARQXTTOKEN	10	
ISGYQUAARQXUCB	3C	
ISGYQUAARQXUSERDATA	60	
ISGYQUAARQXUSERDATALEN	5E	
ISGYQUAARQXUSERDATAOMITTED	3	2
ISGYQUAARQXUSERDATAVALID	3	4
ISGYQUAARQXUSERDATA31	64	
ISGYQUAARQXVERSION	0	
ISGYQUAARS	0	
ISGYQUAARS_KHBB7709	4C	1
ISGYQUAARS_KHBB7740	4C	2
ISGYQUAARS_KMAXVERSION	4C	2
ISGYQUAARS_KVERSION1	4C	1
ISGYQUAARS_KVERSION2	4C	2
ISGYQUAARS_LEN	4C	50
ISGYQUAARSFIRSTRQ	10	
ISGYQUAARSFIRSTRQ31	14	

Table 1062. Cross Reference for ISGYQUAA (continued)

Name	Offset	Hex Tag
ISGYQUAARSFLAGS1	2	
ISGYQUAARSMAX	0	
ISGYQUAARSNEXT	8	
ISGYQUAARSNEXT31	C	
ISGYQUAARSNUMEUSERS	3C	
ISGYQUAARSNUMWAITERS	34	
ISGYQUAARSNUMOWNERS	30	
ISGYQUAARSNUMRQ	28	
ISGYQUAARSNUMSUSERS	40	
ISGYQUAARSNUMSWAITERS	38	
ISGYQUAARSQNAME	20	
ISGYQUAARSRNAME	18	
ISGYQUAARSRNAMELEN	44	
ISGYQUAARSRNAME31	1C	
ISGYQUAARSRQSOMITTED	2	80
ISGYQUAARSRSX	48	
ISGYQUAARSRSXVALID	2	40
ISGYQUAARSRSX31	4C	
ISGYQUAARSSCOPE	46	
ISGYQUAARSTOTALRQ	2C	
ISGYQUAARSVERSION	0	
ISGYQUAARSX	0	
ISGYQUAARSX_KHBB7740	24	1
ISGYQUAARSX_KMAXVERSION	24	1
ISGYQUAARSX_KVERSION1	24	1
ISGYQUAARSX_LEN	24	30
ISGYQUAARSXFLAGS1	2	
ISGYQUAARSXMAX	0	
ISGYQUAARSXRSTOKEN	4	
ISGYQUAARSXRSTOKENVALID	2	80
ISGYQUAARSXVERSION	0	
ISGYQUAASP	0	
ISGYQUAASP_KHBB7730	C	1
ISGYQUAASP_KMAXVERSION	C	1
ISGYQUAASP_KVERSION1	C	1
ISGYQUAASP_LEN	C	10
ISGYQUAASPCURRENQCOUNT	4	
ISGYQUAASPENQMAX	C	
ISGYQUAASPMAX	0	

Table 1062. Cross Reference for ISGYQUAA (continued)

Name	Offset	Hex Tag
ISGYQUAASPPEAKENQCOUNT	8	
ISGYQUAASPVERSION	0	
ISGYQUAASYS	0	
ISGYQUAASYS_KHBB7730	24	1
ISGYQUAASYS_KMAXVERSION	24	1
ISGYQUAASYS_KVERSION1	24	1
ISGYQUAASYS_LEN	24	28
ISGYQUAASYSAUTHORIZED	2	80
ISGYQUAASYSENQMAX	20	
ISGYQUAASYSFLAGS1	2	
ISGYQUAASYSMAX	0	
ISGYQUAASYSNEXT	8	
ISGYQUAASYSNEXT31	C	
ISGYQUAASYSPEAKENQASID	1C	
ISGYQUAASYSPEAKENQCOUNT	18	
ISGYQUAASYSPEAKENQDATA	18	
ISGYQUAASYSSP	10	
ISGYQUAASYSSP31	14	
ISGYQUAASYSVERSION	0	
ISGYQUAAUSERDATA_KINITIALLEN	C	20

## ISGYQUAC information

### ISGYQUAC programming interface information

The following field is **NOT** programming interface information:

- IsgyQuaaHdrV2WaiterBlocker

### ISGYQUAC heading information

<b>Common name:</b>	ISGQUERY Answer area, Compatibility remap
<b>Macro ID:</b>	ISGYQUAC
<b>DSECT name:</b>	ISGYQUAAHdr ISGYQUAARs ISGYQUAARsx ISGYQUAARq ISGYQUAARqx ISGYQUAASys ISGYQUAASp IsgyQuaaLd IsgyQuaaLrd IsgyQuaaHdrUs IsgyQuaaUs
<b>Owning component:</b>	Global Resource Serialization (SCSDS)
<b>Eye-catcher ID:</b>	ISGYQUAA Offset: X'0000' bytes Length: X'0008' bytes
<b>Storage attributes:</b>	Subpool: User-supplied Key: User-supplied Residency: User-supplied

<b>Size:</b>	Variable (and can expand in higher versions) ISGYQUAAHDR -- X'0058' bytes ISGYQUAARS -- X'0050' bytes ISGYQUAARSX -- X'0030' bytes ISGYQUAARQ -- X'0040' bytes ISGYQUAARQX -- X'0088' bytes ISGYQUAASYS -- X'0028' bytes ISGYQUAASP -- X'0010' bytes ISGYQUAALD -- X'0090' bytes ISGYQUAALRD -- X'0048' bytes ISGYQUAAHDRUS -- X'0060' bytes ISGYQUAAUS -- X'0148' bytes
<b>Created by:</b>	Created by user and passed as parameter on ANSAREA keyword for ISGQUERY macro.
<b>Pointed to by:</b>	ANSAREA_ADDR3164 field in ISGQUERY parameter list
<b>Serialization:</b>	None required

**Function:**

Maps the data returned by the ISGQUERY macro.

This data represents an unserialized view of system resources.

The ISGQUERY returns the ISGYQUAAHdr plus the records for each resource and requesters that match the query request.

The answer area was originally mapped by ISGYQUAA but has been remapped here due to compatibility issues with reversioning.

The fields here still begin with ISGYQUAA to minimize rework.

The following structures may expand in size with reversioning:

ISGYQUAAHdr, ISGYQUAARs, ISGYQUAARsx, ISGYQUAARq, ISGYQUAARqx, ISGYQUAASys, ISGYQUAASp, ISGYQUAALd, ISGYQUAALrd, ISGYQUAAHdrUs, ISGYQUAAUs.

Constants are available for the minimum answer area sizes and for specific versions of blocks to avoid data expansions if desired.

Note: Use addresses to locate each record-- the offset to the next record is not guaranteed because the length and order of the records may change.

The answer area written for REQINFO=QSCAN queries is in the following format. ISGYQUAARqx records are only included if ANSDetail=FULL|FULL2|FULL3. ISGYQUAARsx records are only included if ANSDetail=FULL2|FULL3. ISGYQUAARqxV2 fields are only included if ANSDetail=FULL2|FULL3.

```

-----
|      |
| ISGYQUAAHdr |
|-----|
:
:
:
V
|-----|
|      | |-----| |-----|
| ISGYQUAARs |-->| |-----| |-----|
|-----| | ISGYQUAARq | | ISGYQUAARq |
: : : |-----| |-----|
: : V : :
: : RNAME : : V : : V
: : V : : | : : |
: : | | ISGYQUAARqx | | ISGYQUAARqx |
: : ISGYQUAARsx | |-----| |-----|
: : |-----| : :
: : V V
: : ORIG. User
: : RNAME Data
V
|-----|
|      | |-----| |-----|
| ISGYQUAARs |-->| |-----| |-----|
|-----| | ISGYQUAARq | | ISGYQUAARq |
: : : |-----| |-----|
: : V : :
: : RNAME : : V : : V
: : V : : | : : |
: : | | ISGYQUAARqx | | ISGYQUAARqx |

```

```

:| ISGYQUAARsx | |_____| |_____|
:|_____| : :
:      V      V
:      ORIG. User
V      RNAME  Data

```

...

The answer area written for REQINFO=ENQSTATS queries is in the following format. Note: Use addresses to locate each record-- the offset to the next record is not guaranteed because the length and order of the records may change.

```

|_____|
| ISGYQUAAHdr |
|_____|
:
:
: V
|_____| |_____|
| ISGYQUAASys |-->| ISGYQUAASys |
|_____| |_____|
:      :
: V      V
|_____| |_____|
| ISGYQUAASp | | ISGYQUAASp |
|_____| |_____|

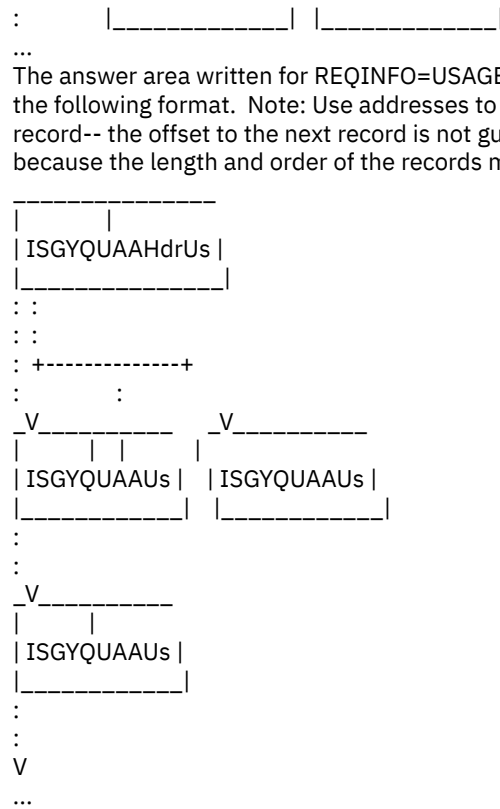
```

The answer area written for REQINFO=LATCHECA queries is in the following format. Note: Use addresses to locate each record-- the offset to the next record is not guaranteed because the length and order of the records may change.

```

|_____|
| ISGYQUAAHdr |
|_____|
:      |      |
:      +----->| ISGYLID_Entry |
: V      :      |_____|
|      | -+
| ISGYQUAALd |-----+
|_____| -+      :
:      :      V
:      : |_____| |_____|
:      +->| ISGYQUAALrd | | ISGYQUAALrd |
:      |_____| |_____|
:
:
: V
|_____|
| ISGYQUAALd |-----+
|_____| -+      :
:      :      V
:      : |_____| |_____|
:      +->| ISGYQUAALrd | | ISGYQUAALrd |

```



## ISGYQUAC mapping

Table 1063. Structure ISGYQUAAHDR

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAAHDR	Header Section
0	(0)	CHARACTER	40	ISGYQUAAHDRV1(0)	
0	(0)	CHARACTER	8	ISGYQUAAHDRID	ISGYQUAA eyecatcher
8	(8)	SIGNED	2	ISGYQUAAHDRVERSION	Header version
10	(A)	SIGNED	2	ISGYQUAAHDRREQINFO	The REQINFO of the request
12	(C)	SIGNED	4	ISGYQUAAHDRNUMRECORDS	Number of ISGYQUAARs or ISGYQUAASys records returned
16	(10)	ADDRESS	8	ISGYQUAAHDRFIRSTRECORD(0)	Addr of first data record
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAAHDRFIRSTRECORD31	Value of ISGYQUAAHDRFirstRecord for AMODE 31 callers
24	(18)	SIGNED	8	ISGYQUAAHDRTOTALLEN(0)	Total Answer Area length of the header and all the data records returned
24	(18)	CHARACTER	4		First word of 64-bit field
28	(1C)	SIGNED	4	ISGYQUAAHDRTOTALLEN31	Value of ISGYQUAAHDRTotalLen for AMODE 31 callers
32	(20)	CHARACTER	8		Reserved
40	(28)	CHARACTER	48	ISGYQUAAHDRV2(0)	
40	(28)	ADDRESS	8	ISGYQUAAHDRV2LASTRECORD(0)	Addr of last data record
40	(28)	CHARACTER	4		First word of 64-bit field
44	(2C)	ADDRESS	4	ISGYQUAAHDRV2LASTRECORD31	Value of ISGYQUAAHDRV2LastRecord for AMODE 31 callers

Table 1063. Structure ISGYQUAAHDR (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
48	(30)	CHARACTER	16	ISGYQUAAHDRV2STARTTIME	STCKE taken when this data collection started
64	(40)	CHARACTER	16	ISGYQUAAHDRV2ENDTIME	STCKE taken when this data collection finished
80	(50)	BITSTRING	1	ISGYQUAAHDRV2FLAGS1(0)	First Flags byte
		.1.. ....		ISGYQUAAHDRV2WAITER	"X'40'" Indicates if this represents a waiter request
81	(51)	CHARACTER	7		Reserved
ISGYQUAAHDR Constants					
81	(51)	X'E2C7E8'	0	ISGYQUAAHDR_KID_0T03	"C'ISGY'" This is the first 4-byte segment of an 8-byte constant.
81	(51)	X'E4C1C1'	0	ISGYQUAAHDR_KID_4T07	"C'QUAA'" This is the second 4-byte segment of an 8-byte constant.
81	(51)	X'2'	0	ISGYQUAAHDR_KMAXVERSION	"2"
81	(51)	X'2'	0	ISGYQUAAHDR_KHBB7780	"2"
81	(51)	X'1'	0	ISGYQUAAHDR_KHBB7709	"1"
81	(51)	X'1'	0	ISGYQUAAHDR_KVERSION1	"1"
81	(51)	X'2'	0	ISGYQUAAHDR_KVERSION2	"2"
81	(51)	X'1'	0	ISGYQUAAHDR_KREQINFO_QSCAN	"1"
81	(51)	X'2'	0	ISGYQUAAHDR_KREQINFO_ENQSTATS	"2"
81	(51)	X'3'	0	ISGYQUAAHDR_KREQINFO_LATCHECA	"3"
81	(51)	X'28'	0	ISGYQUAAHDRV1_KLEN	"40"
81	(51)	X'30'	0	ISGYQUAAHDRV2_KPARTIALLEN	"48"
81	(51)	X'58'	0	ISGYQUAAHDRV2_KLEN	"88"
81	(51)	X'58'	0	ISGYQUAAHDRMAX_KLEN	"88"
81	(51)	X'58'	0	ISGYQUAAHDR_LEN	"*-ISGYQUAAHDR"

Table 1064. Structure ISGYQUAAHDRUS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAAHDRUS	Usage Statistics Header
0	(0)	CHARACTER	96	ISGYQUAAHDRUSV1(0)	
0	(0)	CHARACTER	8	ISGYQUAAHDRUSID	ISGYQUAA eyecatcher
8	(8)	SIGNED	2	ISGYQUAAHDRUSVERSION	Header version
10	(A)	SIGNED	2	ISGYQUAAHDRUSREQINFO	The REQINFO of the request
12	(C)	SIGNED	4	ISGYQUAAHDRUSNUMASRECORDS	Number of ISGYQUAAUs records returned for active address spaces
16	(10)	ADDRESS	8	ISGYQUAAHDRUSFIRSTASRECORD(0)	Addr of first address space data record
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAAHDRUSFIRSTASRECORD31	
					Value of ISGYQUAAHDRUsFirstAsRecord for AMODE 31 callers
24	(18)	SIGNED	8	ISGYQUAAHDRUSTOTALLEN(0)	Total Answer Area length of the header and all the data records returned



Table 1064. Structure ISGYQAAHDRUS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	CHARACTER	4		First word of 64-bit field
28	(1C)	SIGNED	4	ISGYQAAHDRUSTOTALLEN31	Value of ISGYQAAHDRTotalLen for AMODE 31 callers
32	(20)	ADDRESS	8	ISGYQAAHDRUSTERMINATEDSPACESRECORD(0)	Addr of the Terminated Spaces Record
32	(20)	CHARACTER	4		First word of 64-bit field
36	(24)	ADDRESS	4	ISGYQAAHDRUSTERMINATEDSPACESRECORD31	Value of ISGYQAAHDRUsTerminatedSpacesRecord for AMODE 31 callers
40	(28)	CHARACTER	24		Reserved for future use
64	(40)	CHARACTER	16	ISGYQAAHDRUSSTARTTIME	STCKE taken when this data collection started
80	(50)	CHARACTER	16	ISGYQAAHDRUSENDTIME	STCKE taken when this data collection finished
ISGYQAAHDRUS Constants					
80	(50)	X'E2C7E8'	0	ISGYQAAHDRUS_KID_0T03	"C'ISGY'" This is the first 4-byte segment of an 8-byte constant.
80	(50)	X'E4C1C1'	0	ISGYQAAHDRUS_KID_4T07	"C'QUAA'" This is the second 4-byte segment of an 8-byte constant.
80	(50)	X'1'	0	ISGYQAAHDRUS_KMAXVERSION	"1"
80	(50)	X'1'	0	ISGYQAAHDRUS_KHBB7780	"1"
80	(50)	X'1'	0	ISGYQAAHDRUS_KVERSION1	"1"
80	(50)	X'4'	0	ISGYQAAHDRUS_KREQINFO_USAGESTATS	"4"
80	(50)	X'60'	0	ISGYQAAHDRUSV1_KLEN	"96"
80	(50)	X'60'	0	ISGYQAAHDRUSMAX_KLEN	"96"
80	(50)	X'60'	0	ISGYQAAHDRUS_LEN	"*-ISGYQAAHDRUS"

Table 1065. Structure ISGYQUAARS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARS	Resource Data Record
0	(0)	CHARACTER	80	ISGYQUAARSV1(0)	
0	(0)	SIGNED	2	ISGYQUAARSVERSION	ISGYQUAARs version
2	(2)	BITSTRING	1	ISGYQUAARSFLAGS1(0)	First Flags byte
		1... ....		ISGYQUAARSRQSOMITTED	"X'80'" Indicates if RQs were left out because of insufficient Answer Area Space
		.1.. ....		ISGYQUAARSRSXVALID	"X'40'" Indicates that the ISGYQUAARsRx field is valid
3	(3)	CHARACTER	5		Reserved
8	(8)	ADDRESS	8	ISGYQUAARSNEXT(0)	Address of next RS record returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAARSNEXT31	Value of ISGYQUAARsNext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYQUAARSFIRSTRQ(0)	Addr of first QReq address
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAARSFIRSTRQ31	Value of ISGYQUAARsFirstRq for AMODE 31 callers

Table 1065. Structure ISGYQUAARS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	ADDRESS	8	ISGYQUAARSNAME(0)	Address of final Rname for the resource
24	(18)	CHARACTER	4		First word of 64-bit field
28	(1C)	ADDRESS	4	ISGYQUAARSNAME31	Value of ISGYQUAARSName for AMODE 31 callers
32	(20)	CHARACTER	8	ISGYQUAARSQNAME	Final QName of the resource
40	(28)	SIGNED	4	ISGYQUAARSNUMRQ	Number of Requester records returned for this Resource
44	(2C)	SIGNED	4	ISGYQUAARSTOTALRQ	Total number of matching requesters associated with this resource. Check ISGYQUAARSRQsOmitted to see if some RQs were not included because of insufficient answer area space. If this number differs from ISGYQUAARSNumRq and ISGYQUAARSRQsOmitted is off then not all matching requester information was returned for this resource because the number exceeded the Requester Limit. To obtain a count of all requesters for this resource (matching and not), add ISGYQUAARSNumOwners, ISGYQUAARSNumEWaiters, ISGYQUAARSNumSWaiters, ISGYQUAARSNumEUsers, and ISGYQUAARSNumSUsers. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.
48	(30)	SIGNED	4	ISGYQUAARSNUMOWNERS	Number of matching requesters that own this resource. This number does not include owners that have control of the resource by a MASID request. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.
52	(34)	SIGNED	4	ISGYQUAARSNUMEWAITERS	Number of requesters waiting for exclusive control of this resource. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.
56	(38)	SIGNED	4	ISGYQUAARSNUMSWAITERS	Number of requesters waiting for shared control of this resource. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.
60	(3C)	SIGNED	4	ISGYQUAARSNUMEUSERS	Number of MASID requests that have exclusive control of this resource. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.
64	(40)	SIGNED	4	ISGYQUAARSNUMSUSERS	Number of MASID requests that have shared control of this resource. Note: If SERIALIZEBY=ENQ_ONLY or SERIALIZEBY_RESERVE was specified on the query, then the counts only reflect requests that match the SERIALIZEBY filter.

Table 1065. Structure ISGYQUAARS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
68	(44)	SIGNED	2	ISGYQUAARSNAMELEN	Length of resource RName
70	(46)	BITSTRING	1	ISGYQUAARSSCOPE	Final scope of resource. One of either ISGYQUAA_kSTEP, ISGYQUAA_kSYSTEM, or ISGYQUAA_kSYSPLEX
71	(47)	CHARACTER	1		Reserved
72	(48)	ADDRESS	8	ISGYQUAARSRSX(0)	Address of resource record extension. Valid only if ISGYQUAARSRsxValid is set.
72	(48)	CHARACTER	4		First word of 64-bit field
76	(4C)	ADDRESS	4	ISGYQUAARSRSX31	Value of ISGYQUAARSRsx for AMODE 31 callers
ISGYQUAARS Constants					
76	(4C)	X'2'	0	ISGYQUAARS_KMAXVERSION	"2"
76	(4C)	X'1'	0	ISGYQUAARS_KHBB7709	"1"
76	(4C)	X'2'	0	ISGYQUAARS_KHBB7740	"2"
76	(4C)	X'1'	0	ISGYQUAARS_KVERSION1	"1"
76	(4C)	X'2'	0	ISGYQUAARS_KVERSION2	"2"
76	(4C)	X'50'	0	ISGYQUAARSV1_KLEN	"80"
76	(4C)	X'50'	0	ISGYQUAARSMAX_KLEN	"80"
76	(4C)	X'50'	0	ISGYQUAARS_LEN	"*-ISGYQUAARS"

Table 1066. Structure ISGYQUAARSX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARSX	Resource extension
0	(0)	CHARACTER	48	ISGYQUAARSXV1(0)	
0	(0)	SIGNED	2	ISGYQUAARSXVERSION	ISGYQUAARSx version
2	(2)	BITSTRING	1	ISGYQUAARSXFLAGS1(0)	Flags byte
		1... ....		ISGYQUAARSXRSCOKENVALID	"X'80'" Indicates that the ISGYQUAARSxRscToken is valid. Currently, for Star mode globals the token is only valid for resources for which the local system has interest. Ring mode globals and all locals will always have a valid token
3	(3)	CHARACTER	1		Reserved
4	(4)	CHARACTER	32	ISGYQUAARSXRSCOKEN	This token can be used to identify an instance of the resource identified by ISGYQUAARS. The token represents the local systems view of the resource and expires when no requests for the resource remain. Additionally, in Star mode the token expires when the local system no longer has interest in (i.e. requests for) the resource. Only valid if ISGYQUAARSxRscTokenValid is on.
36	(24)	CHARACTER	12		Reserved
ISGYQUAARSx Constants					
36	(24)	X'1'	0	ISGYQUAARSX_KMAXVERSION	"1"
36	(24)	X'1'	0	ISGYQUAARSX_KHBB7740	"1"
36	(24)	X'1'	0	ISGYQUAARSX_KVERSION1	"1"

Table 1066. Structure ISGYQUAARSX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
36	(24)	X'30'	0	ISGYQUAARSXV1_KLEN	"48"
36	(24)	X'30'	0	ISGYQUAARSXMAX_KLEN	"48"
36	(24)	X'30'	0	ISGYQUAARSX_LEN	"*-ISGYQUAARSX"

Table 1067. Structure ISGYQUAARQ

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARQ	Requester Data Record
0	(0)	CHARACTER	64	ISGYQUAARQV1(0)	
0	(0)	SIGNED	2	ISGYQUAARQVERSION	ISGYQUAARQ version
2	(2)	BITSTRING	1	ISGYQUAARQFLAGS1(0)	First flags byte
		1... ....		ISGYQUAARQCONTROL	"X'80'" Type of serialization for request, where 0 = exclusive control and 1 = shared control
		.1.. ....		ISGYQUAARQRESERVE	"X'40'" Request specified (or was changed by a dynamic exit) to obtain a device reserve. The device is known to be reserved when ISGYQUAARqReserveConverted is off and ISGYQUAARqSynchRes and ISGYQUAARqPosted are on and one of the following two conditions are true. 1) The request originated from the local system 2) Global Resource Serialization is operating in Star mode. The device will be setup to be reserved on the first I/O (which may have completed) if ISGYQUAARqReserveConverted is off, ISGYQUAARqSynchRes is off, and ISGYQUAARqPosted is on.
		..1. ....		ISGYQUAARQRESERVECONVERTED	"X'20'" Request specified to obtain a device reserve, but request was converted to a global (SYSTEMS) ENQ
		...1 ....		ISGYQUAARQSYNCHRES	"X'10'" Request specified to obtain a device reserve, the device was already reserved by the same system image or it was committed to being done synchronously (SYNCHRES). Only valid if ISGYQUAARqMisc64Valid is set.
		.... 1...		ISGYQUAARQOWNER	"X'08'" Requester is an owner of the resource. If the requester is not an owner, and also not a Matching task user (See ISGYQUAARqMATU) then the requester is a waiter. Note that if a non-converted reserve (ISGYQUAARqReserve is on and ISGYQUAARqReserveConverted is off) then see ISGYQUAARqSynchRes to determine the state of the reserve processing.
		.... .1..		ISGYQUAARQMATU	"X'04'" Matching task use indicator. Requester is using the resource as the result of a MASID/MTCB request
		.... ..1.		ISGYQUAARQPOSTED	"X'02'" The requester has been informed that the request has completed. The ECB has been posted or the requester's suspended TCB RB has been posted. Note that in Ring mode, when the request originated on another system and ISGYQUAARqSynchRes is on, the requester may be waiting for synchronous reserve processing to complete.

Table 1067. Structure ISGYQUAARQ (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... ...1		ISGYQUAARQMISC64VALID	"X'01'" In some cases not all the information is available from remote systems. This bit indicates that the following fields are valid: ISGYQUAARQEnqToken and ISGYQUAARQSynchRes. Also, when this bit and the ISGYQUAARqRqxValid bit is on, the following fields are valid: ISGYQUAARqxAltSerExtended, ISGYQUAARqxNQXITChanged, ISGYQUAARqxBatchChanged, ISGYQUAARqxEnqTime, ISGYQUAARqxRNLChanged, ISGYQUAARqxOrigQNameValid, ISGYQUAARqxOrigRNameValid, ISGYQUAARqxOrigScopeValid, ISGYQUAARqxOrigUCB, ISGYQUAARqxSToken, ISGYQUAARqxTTToken, ISGYQUAARqxUserDataValid, and ISGYQUAARqxUserDataOmitted
3	(3)	BITSTRING	1	ISGYQUAARQFLAGS2(0)	Second flags byte
		1... ....		ISGYQUAARQRQXVALID	"X'80'" Indicates that the ISGYQUAARqRQX field is valid
4	(4)	ADDRESS	4	ISGYQUAARQTCB	TCB address of requester
8	(8)	ADDRESS	8	ISGYQUAARQNEXT(0)	Address of next requester record returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAARQNEXT31	Value of ISGYQUAARqNext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYQUAARQRQX(0)	Address of requester record extension. Valid only if ISGYQUAARQRQXValid is set.
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAARQRQX31	Value of ISGYQUAARqRQX for AMODE 31 callers
24	(18)	CHARACTER	32	ISGYQUAARQENQTOKEN	ENQToken that represents this request. Only valid if ISGYQUAARqMisc64Valid is set.
56	(38)	CHARACTER	8		Reserved
ISGYQUAARQ Constants					
56	(38)	X'1'	0	ISGYQUAARQ_KMAXVERSION	"1"
56	(38)	X'1'	0	ISGYQUAARQ_KHBB7709	"1"
56	(38)	X'1'	0	ISGYQUAARQ_KVERSION1	"1"
56	(38)	X'40'	0	ISGYQUAARQV1_KLEN	"64"
56	(38)	X'40'	0	ISGYQUAARQMAX_KLEN	"64"
56	(38)	X'40'	0	ISGYQUAARQ_LEN	"*-ISGYQUAARQ"

Table 1068. Structure ISGYQUAARQX

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAARQX	Rqx of ANSDetail=FULL
0	(0)	CHARACTER	104	ISGYQUAARQXV1(0)	
0	(0)	SIGNED	2	ISGYQUAARQXVERSION	ISGYQUAARQX version
2	(2)	BITSTRING	1	ISGYQUAARQXFLAGS1(0)	Flags byte

Table 1068. Structure ISGYQUAARQX (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		1... ....		ISGYQUAARQXNQXITCHANGED	"X'80'" Indicates that the request was modified by an ENQ exit. ISGNQXIT or ISGNQXITFAST Only valid if ISGYQUAARqMisc64Valid is set.
		.1.. ....		ISGYQUAARQXBATCHCHANGED	"X'40'" Indicates that the request was modified by a batch exit. ISGNQXITBATCH, ISGNQXITPREBATCH, or ISGNQXITBATCHCND. Only valid if ISGYQUAARqMisc64Valid is set.
		..1. ....		ISGYQUAARQXRNLCHANGED	"X'20'" Indicates that the scope was modified by the RNLs Only valid if ISGYQUAARqMisc64Valid is set.
		...1 ....		ISGYQUAARQXORIGQNAMEVALID	"X'10'" Indicates that the ISGYQUAARqOrigQName field is valid. If off then the original QName is the same as the final. This bit is only valid if ISGYQUAARqMisc64Valid is set.
		.... 1...		ISGYQUAARQXORIGRNAMEVALID	"X'08'" Indicates that the ISGYQUAARqOrigRName field is valid. If off then the original RName is the same as the final. This bit is only valid if ISGYQUAARqMisc64Valid is set.
		.... .1..		ISGYQUAARQXORIGUCB@VALID	"X'04'" Indicates that the ISGYQUAARqOrigUCB field is valid. If off then the original UCB@ is the same as the final. This bit is only valid if ISGYQUAARqMisc64Valid is set.
		.... ..1.		ISGYQUAARQXORIGSCOPEVALID	"X'02'" Indicates that the ISGYQUAARqOrigScope field is valid. If off then the original scope is the same as the final. This bit is only valid if ISGYQUAARqMisc64Valid is set.
		.... ...1		ISGYQUAARQXSERVICEASIDVALID	"X'01'" ISGYQUAARqServiceAsid field is valid
3	(3)	BITSTRING	1	ISGYQUAARQXFLAGS2(0)	Second flags byte
		1... ....		ISGYQUAARQXMUSTCOMPLETE	"X'80'" Request set must complete
		.1.. ....		ISGYQUAARQXAUTHORIZED	"X'40'" Requester was authorized
		..1. ....		ISGYQUAARQXALTSEREXTENDED	"X'20'" This request is being managed by an alternate serialization product at the global level. This bit is only valid if ISGYQUAARqMisc64Valid is set.
		...1 ....		ISGYQUAARQXMATCHINGTASK	"X'10'" This is a matching task (MTCB/MASID) request. ISGYQUAARqMTcb and ISGYQUAARqMASid contain the TCB and ASID of the matching task
		.... 1...		ISGYQUAARQXECBREQUEST	"X'08'" ECB was specified on ENQ request

Table 1068. Structure ISGYQUAARQX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
		.... .1..		ISGYQUAARQXUSERDATAVALID	"X'04'" Userdata was specified on the ISGENQ request and ANSDetail=FULL3 was specified on this ISGQUERY request. This bit is only valid if ISGYQUAARqMisc64Valid is set. If Userdata was expected for this requester, and ISGYQUAARqMisc64Valid is set, but this bit is off, one of the following conditions is true: 1)GRS is operating in STAR mode, this resource is global, and the ISGQUERY request specified GATHERFROM=SYSPLEX. If the resource request originated on the current system, issue another ISGQUERY specifying GATHERFROM=SYSTEM to obtain the Userdata. 2) The ISGYQUAARqxUserdataOmitted bit is set. See the declaration for details.
		.... ..1.		ISGYQUAARQXUSERDATAOMITTED	"X'02'" Userdata was specified on the ISGENQ request and ANSDetail=FULL3 was specified on this ISGQUERY request, however, there was not enough room in the answer area to return the userdata. Allocate a larger answer area space. Use the following formula to determine the amount of storage needed: (ISGYQUAA_kQScanMinFull3AnsLen + ISGYQUAARqxUserdataLen - ISGYQUAAUserDataInitialLen)
4	(4)	CHARACTER	2		Reserved
6	(6)	CHARACTER	42	ISGYQUAARQXREQUESTERDATA(0)	
6	(6)	SIGNED	2	ISGYQUAARQXASID	ASID of ENQ requester
8	(8)	CHARACTER	8	ISGYQUAARQXSTOKEN	SToken of requester. Only valid if ISGYQUAARqMisc64Valid is set.
16	(10)	CHARACTER	16	ISGYQUAARQXTTOKEN	TToken of requester. Only valid if ISGYQUAARqMisc64Valid is set.
32	(20)	CHARACTER	8	ISGYQUAARQXJOBNAME	Job name of requester
40	(28)	CHARACTER	8	ISGYQUAARQXSYSNAME	System name of requester
48	(30)	ADDRESS	4	ISGYQUAARQXMTCB	Matching task TCB (MTCB) specified by requester. Valid only if ISGYQUAARqxMatchingTask is set
52	(34)	SIGNED	2	ISGYQUAARQXMASID	Matching task ASID (MASID) specified by requester. Valid only if ISGYQUAARqxMatchingTask is set
54	(36)	SIGNED	2	ISGYQUAARQXSERVICEASID	ASID of the task for which a service PROVIDER performed this ENQ request. If ISGYQUAARqxServiceAsidValid is set then ISGYQUAARqxAsid is the ASID of the service PROVIDER and ISGYQUAARqServiceAsid is the ASID of the service REQUESTER. If ISGYQUAARqxServiceAsid is zero, the service REQUESTER's ASID is not available
56	(38)	ADDRESS	4	ISGYQUAARQXECB(0)	ECB address if ISGYQUAARqxECBRequest is set
56	(38)	ADDRESS	4	ISGYQUAARQXSVRB	SVRB address if ISGYQUAARqxECBRequest is zero
60	(3C)	ADDRESS	4	ISGYQUAARQXUCB	Final UCB address if request was for a device reserve on this system for a three-digit device-number device. Otherwise, arithmetic zero. Note that if ISGYQUAARqReserveConverted is set the device was not reserved

Table 1068. Structure ISGYQUAARQX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
64	(40)	CHARACTER	4	ISGYQUAARQXDEVICENUM	If the request was for a device reserve from the current system then this field contains the EBCDIC device number of the the target of the reserve, Otherwise it is arithmetic zero
68	(44)	ADDRESS	4	ISGYQUAARQX4CHUCB	Same as ISGYQUAARqxUcb except it includes four character device number devices
72	(48)	CHARACTER	8	ISGYQUAARQXORIGQNAME	Original QName specified on request. Only valid if ISGYQUAARqxOrigQNameValid and ISGYQUAARqMisc64Valid are set.
80	(50)	ADDRESS	8	ISGYQUAARQXORIGRNAME(0)	Address of original RName specified on request. Only valid if ISGYQUAARqxOrigRNameValid and ISGYQUAARqMisc64Valid are set.
80	(50)	CHARACTER	4		First word of 64-bit field
84	(54)	ADDRESS	4	ISGYQUAARQXORIGRNAME31	Value of ISGYQUAARqxOrigRName for AMODE 31 callers
88	(58)	ADDRESS	4	ISGYQUAARQXORIGUCB@	Original UCB@ specified on request if the UCB address was changed by a dynamic exit. Note that a reserve conversion does not change the UCB@, but causes the device reserve request to be ignored. Only valid if if ISGYQUAARqxOrigUCB@Valid and ISGYQUAARqMisc64Valid are set.
92	(5C)	BITSTRING	1	ISGYQUAARQXORIGRNAMELEN	Length of original RName specified on request. Only valid if ISGYQUAARqxOrigRNameValid and ISGYQUAARqMisc64Valid are set.
93	(5D)	BITSTRING	1	ISGYQUAARQXORIGSCOPE	Original scope specified on request. One of either ISGYQUAA_kSTEP, ISGYQUAA_kSYSTEM, or ISGYQUAA_kSYSPLEX. Only valid if if ISGYQUAARqxOrigScopeValid and ISGYQUAARqMisc64Valid are set.
94	(5E)	SIGNED	2	ISGYQUAARQXUSERDATALEN	Length of Userdata specified on request. Only valid if ISGYQUAARqxUserDataValid and ISGYQUAARqMisc64Valid are set.
96	(60)	ADDRESS	8	ISGYQUAARQXUSERDATA(0)	Address of userdata specified on request. Only valid if ISGYQUAARqxUserDataValid and ISGYQUAARqMisc64Valid are set. Note: The length, ISGYQUAARqxUserdataLen, should always be used when accessing the userdata, as its length may change in the future
96	(60)	CHARACTER	4		First word of 64-bit field
100	(64)	ADDRESS	4	ISGYQUAARQXUSERDATA31	Value of ISGYQUAARqxUserData for AMODE 31 callers
104	(68)	CHARACTER	32	ISGYQUAARQXV2(0)	
104	(68)	CHARACTER	16	ISGYQUAARQXV2ENQTIME	This is the time, in extended TOD format, of when the ENQ request was originally made. Only valid if ISGYQUAARqMisc64Valid is set.
120	(78)	CHARACTER	16		Reserved
ISGYQUAARQX Constants					
120	(78)	X'2'	0	ISGYQUAARQX_KMAXVERSION	"2"
120	(78)	X'1'	0	ISGYQUAARQX_KHBB7709	"1"



Table 1068. Structure ISGYQUAARQX (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
120	(78)	X'2'	0	ISGYQUAARQX_KHBB7740	"2"
120	(78)	X'1'	0	ISGYQUAARQX_KVERSION1	"1"
120	(78)	X'2'	0	ISGYQUAARQX_KVERSION2	"2"
120	(78)	X'68'	0	ISGYQUAARQXV1_KLEN	"104"
120	(78)	X'20'	0	ISGYQUAARQXV2_KPARTIALLEN	"32"
120	(78)	X'88'	0	ISGYQUAARQXV2_KLEN	"136"
120	(78)	X'88'	0	ISGYQUAARQXMAX_KLEN	"136"
120	(78)	X'88'	0	ISGYQUAARQX_LEN	"*-ISGYQUAARQX"

Table 1069. Structure ISGYQUAASYS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAASYS	The REQINFO=ENQSTATS system data
0	(0)	CHARACTER	40	ISGYQUAASYSV1(0)	
0	(0)	SIGNED	2	ISGYQUAASYSVERSION	ISGYQUAASys version
2	(2)	BITSTRING	1	ISGYQUAASYSFLAGS1(0)	First Flags byte
		1... ....		ISGYQUAASYSAUTHORIZED	"X'80'" Indicates whether this block refers to the authorized or unauthorized counts
3	(3)	CHARACTER	5		Reserved
8	(8)	ADDRESS	8	ISGYQUAASYSNEXT(0)	Address of next system record returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAASYSNEXT31	Value of ISGYQUAASysNext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYQUAASYS SSP(0)	Address of address-space specific data (the ISGYQUAASysAuthorized flag applies to it as well)
16	(10)	CHARACTER	4		1st word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAASYS SSP31	Value of ISGYQUAASysSp for AMODE 31 callers
24	(18)	CHARACTER	8	ISGYQUAASYSPEAKENQDATA(0)	
24	(18)	SIGNED	4	ISGYQUAASYSPEAKENQCOUNT	Peak ENQ count of requesters for any address space for the life of the system
28	(1C)	SIGNED	2	ISGYQUAASYSPEAKENQASID	ASID associated with with the overall peak for ENQ requests. Note that ASIDs are reusable and the address space may not still be active.
30	(1E)	CHARACTER	2		unused
32	(20)	SIGNED	4	ISGYQUAASYS ENQMAX	System-wide maximum limit of ENQs from any one address space
36	(24)	CHARACTER	4		unused
ISGYQUAASys Constants					
36	(24)	X'1'	0	ISGYQUAASYS_KMAXVERSION	"1"
36	(24)	X'1'	0	ISGYQUAASYS_KHBB7730	"1"
36	(24)	X'1'	0	ISGYQUAASYS_KVERSION1	"1"
36	(24)	X'28'	0	ISGYQUAASYSV1_KLEN	"40"
36	(24)	X'28'	0	ISGYQUAASYS MAX_KLEN	"40"
36	(24)	X'28'	0	ISGYQUAASYS_LEN	"*-ISGYQUAASYS"

Table 1070. Structure ISGYQUAASP

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAASP	REQINFO=ENQSTATS address space specific data
0	(0)	CHARACTER	16	ISGYQUAASPV1(0)	
0	(0)	SIGNED	2	ISGYQUAASPVERSION	ISGYQUAASp version
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ISGYQUAASPCURRENTQCOUNT	Current ENQ count for the specified address space
8	(8)	SIGNED	4	ISGYQUAASPPEAKENQCOUNT	Peak ENQ count of requesters for the life of the specified address space.
12	(C)	SIGNED	4	ISGYQUAASPENQMAX	If non-zero, the address- space specific maximum number of ENQs, set via ISGADMIN. If zero, none exists and the system maximum is used.
ISGYQUAASp Constants					
12	(C)	X'1'	0	ISGYQUAASP_KMAXVERSION	"1"
12	(C)	X'1'	0	ISGYQUAASP_KHBB7730	"1"
12	(C)	X'1'	0	ISGYQUAASP_KVERSION1	"1"
12	(C)	X'10'	0	ISGYQUAASPV1_KLEN	"16"
12	(C)	X'10'	0	ISGYQUAASPMAX_KLEN	"16"
12	(C)	X'20'	0	ISGYQUAAUSERDATA_KINITIALLEN	"32" The initial length of ISGYQUAAUserdata
12	(C)	X'10'	0	ISGYQUAASP_LEN	"*-ISGYQUAASP"

Table 1071. Structure ISGYQUAALD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAALD	Latch Data
0	(0)	CHARACTER	144	ISGYQUAALDV1(0)	
0	(0)	SIGNED	2	ISGYQUAALDVERSION	IsgyQuaalD version
2	(2)	BITSTRING	1	ISGYQUAALDFLAGS1(0)	First Flags byte
		1... ....		ISGYQUAALDLATCHIDVALID	"X'80'" Indicates if there is a LID for this latch
		.1.. ....		ISGYQUAALDDATANOTAVAIL	"X'40'" Indicates that there was a problem obtaining information on the requesters of this latch. When set no waiter or blocker LRDs are returned and IsgyQuaalDDiag1 and IsgyQuaalDDiag2 hold diagnostic information. If the data for this latch is vital, re-issue the ISGQUERY Request
3	(3)	CHARACTER	5		Reserved
8	(8)	ADDRESS	8	ISGYQUAALDNEXT(0)	Address of next latch record returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAALDNEXT31	Value of IsgyQuaalDNext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYQUAALDPREV(0)	Address of Prev latch record returned
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAALDPREV31	Value of IsgyQuaalDPrev for AMODE 31 callers
24	(18)	ADDRESS	8	ISGYQUAALDWAITERLRD(0)	Address of first latch requester data for a waiter

Table 1071. Structure ISGYQUAALD (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	CHARACTER	4		1st word of 64-bit field
28	(1C)	ADDRESS	4	ISGYQUAALDWAITERLRD31	Value of IsgyQuaaLdWaiterLrd for AMODE 31 callers
32	(20)	ADDRESS	8	ISGYQUAALDBLOCKERLRD(0)	Address of first latch requester data for a blocker
32	(20)	CHARACTER	4		1st word of 64-bit field
36	(24)	ADDRESS	4	ISGYQUAALDBLOCKERLRD31	Value of IsgyQuaaLdBlockerLrd for AMODE 31 callers
40	(28)	SIGNED	4	ISGYQUAALDLATCHNUM	The latch number
44	(2C)	SIGNED	2	ISGYQUAALDLATCHIDLEN	The length of the latch Identity entry for this latch. Only valid if IsgyQuaaLdLatchIDValid is ON
46	(2E)	BITSTRING	1	ISGYQUAALDLATCHIDVERSION	The version of the latch Identity entry for this latch. Only valid if IsgyQuaaLdLatchIDValid is ON
47	(2F)	CHARACTER	1		Reserved
48	(30)	ADDRESS	8	ISGYQUAALDLATCHID(0)	The address of the latch Identity entry for this latch. Only valid if IsgyQuaaLdLatchIDValid is ON. See ISGYLID_Entry defined in the language specific latch macro for more details on the control block pointed to by this field
48	(30)	CHARACTER	4		1st word of 64-bit field
52	(34)	ADDRESS	4	ISGYQUAALDLATCHID31	Value of IsgyQuaaLdLatchID for AMODE 31 callers
56	(38)	SIGNED	2	ISGYQUAALDCASID	ASID of the latch set creator
58	(3A)	SIGNED	2	ISGYQUAALDRETURNEDLIDPSLEN	Length of the Latch ID printable string that is returned. Normally this will be the same as LidPrintableStringLength, unless it has been truncated to IsgyQuaa_kLidPrintableStrin_gMaxLen
60	(3C)	CHARACTER	4		Unused
64	(40)	SIGNED	4	ISGYQUAALDNUMBLOCKERS(0)	Total number of owners of this latch
64	(40)	SIGNED	4	ISGYQUAALDDIAG1	Diag field when flag IsgyQuaaLdDataNotAvail is set
68	(44)	SIGNED	4	ISGYQUAALDDIAG2(0)	Diag field when flag IsgyQuaaLdDataNotAvail is set
68	(44)	SIGNED	4	ISGYQUAALDNUMWAITERS	Total number of waiters for this latch (valid only for BLOCKER requests)
72	(48)	CHARACTER	8		Unused
80	(50)	CHARACTER	8	ISGYQUAALDCJOBNAME	Jobname of the latch set creator
88	(58)	CHARACTER	8	ISGYQUAALDLATCHSETTOKEN	The latch set token
96	(60)	CHARACTER	48	ISGYQUAALDLATCHSETNAME	The latch set name
96	(60)	X'1'	0	ISGYQUAALD_KMAXVERSION	"1"
96	(60)	X'1'	0	ISGYQUAALD_KVERSION1	"1"
96	(60)	X'90'	0	ISGYQUAALDV1_KLEN	"144"
96	(60)	X'90'	0	ISGYQUAALDMAX_KLEN	"144"
96	(60)	X'90'	0	ISGYQUAALD_LEN	"*-ISGYQUAALD"

Table 1072. Structure ISGYQUAALRD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAALRD	
0	(0)	CHARACTER	72	ISGYQUAALRDV1(0)	
0	(0)	SIGNED	2	ISGYQUAALRDVERSION	IsgyQuaalRD version
2	(2)	BITSTRING	1	ISGYQUAALRDFLAGS1(0)	First Flags byte
		1... ....		ISGYQUAALRDEXCLUSIVE	"X'80'" If ON, latch was requested exclusive. If OFF latch was requested shared.
		.1.. ....		ISGYQUAALRDTASKMODE	"X'40'" If ON, this latch requester was in Task mode at the time of the request. If OFF requestor was in SRB mode
3	(3)	CHARACTER	5		Reserved
8	(8)	ADDRESS	8	ISGYQUAALRDNEXT(0)	Address of next latch requester returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAALRDNEXT31	Value of IsgyQuaalRdNext for AMODE 31 callers
16	(10)	ADDRESS	8	ISGYQUAALRDPREV(0)	Address of Prev latch requester returned
16	(10)	CHARACTER	4		First word of 64-bit field
20	(14)	ADDRESS	4	ISGYQUAALRDPREV31	Value of IsgyQuaalRdPrev for AMODE 31 callers
24	(18)	CHARACTER	8	ISGYQUAALRDJOBNAME	Jobname of this latch requester
32	(20)	SIGNED	2	ISGYQUAALRDASID	ASID of this latch requester
34	(22)	CHARACTER	2		Reserved
36	(24)	ADDRESS	4	ISGYQUAALRDWORKUNIT@	If IsgyQuaalRdTcbMode is ON, this is the address of the requesting TCB. Otherwise this is the WEB address of the requesting SRB.
40	(28)	BITSTRING	8	ISGYQUAALRDOWNTOD	Timestamp of when this requester became an owner of this latch. This field will be binary zero if this requester is not an owner of this latch. This value has not been adjusted for leap seconds
48	(30)	BITSTRING	8	ISGYQUAALRDWAITREQTOD	This is the time that the request was made and is only set when there is contention. A value of zero indicates that there was no contention and thus IsgyQuaalRdOwnTOD is also the request time. The value has not been adjusted for leap seconds.
56	(38)	BITSTRING	8	ISGYQUAALRDRESUMEDTOD	This is the time that the requester's unit of work was resumed. It is only set when there is contention for an UNCOND request and represents the time that the requester's unit of work started executing with the latch held. The value has not been adjusted for leap seconds.
64	(40)	CHARACTER	8	ISGYQUAALRDLATCHTOKEN	The latch token
64	(40)	X'1'	0	ISGYQUAALRD_KMAXVERSION	"1"
64	(40)	X'1'	0	ISGYQUAALRD_KVERSION1	"1"
64	(40)	X'48'	0	ISGYQUAALRDV1_KLEN	"72"
64	(40)	X'48'	0	ISGYQUAALRDMAX_KLEN	"72"
64	(40)	X'48'	0	ISGYQUAALRD_LEN	"*-ISGYQUAALRD"

Table 1073. Structure ISGYQUAAUS

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ISGYQUAAUS	
0	(0)	CHARACTER	328	ISGYQUAAUSV1(0)	
0	(0)	SIGNED	2	ISGYQUAAUS_VERSION	IsgyQuaaUs Version
2	(2)	SIGNED	2	ISGYQUAAUS_ASID	Valid if the IsgyQuaaUs is on the IsgyQuaaHdrUsFirstAsRecord Chain. This field indicates the Address space number for which the following data was collected. All of the statistics that follow represent requests that were made when this was the Home address space
4	(4)	CHARACTER	4		
8	(8)	ADDRESS	8	ISGYQUAAUS_NEXT(0)	Address of next US record returned
8	(8)	CHARACTER	4		First word of 64-bit field
12	(C)	ADDRESS	4	ISGYQUAAUS_NEXT31	Value of ISGYQUAAUSNext for AMODE 31 callers
16	(10)	CHARACTER	8	ISGYQUAAUS_STOKEN	Valid if the is on the IsgyQuaaHdrUsFirstAsRecord Chain. This field indicates the STOKEN for which the following data was collected.
24	(18)	CHARACTER	32	ISGYQUAAUS_LATCHCREATORCONTSTATS(0)	Statistics for Latch requests against Latch sets created by this address space
24	(18)	SIGNED	8	ISGYQUAAUS_LC_CONTCOUNT	Number of contention generating requests
32	(20)	SIGNED	8	ISGYQUAAUS_LC_CONTTIME	Total time of contention
40	(28)	CHARACTER	16	ISGYQUAAUS_LC_CONTTIMESQ	Sum of the squares of the individual contention times
56	(38)	CHARACTER	32	ISGYQUAAUS_LATCHREQUESTERCONTSTATS(0)	Statistics for Latch requests that occurred in this address space
56	(38)	SIGNED	8	ISGYQUAAUS_LR_CONTCOUNT	Number of contention generating requests
64	(40)	SIGNED	8	ISGYQUAAUS_LR_CONTTIME	Total time of contention
72	(48)	CHARACTER	16	ISGYQUAAUS_LR_CONTTIMESQ	Sum of the squares of the individual contention times
88	(58)	CHARACTER	48	ISGYQUAAUS_ENQSTEPSTATS(0)	Statistics for requests that generated STEP scope ENQs from this address space
88	(58)	SIGNED	8	ISGYQUAAUS_ESTEPTOTALCOUNT	Total number of requests that resulted in GRS queuing an element (contention and non-contention cases)
96	(60)	SIGNED	8	ISGYQUAAUS_ESTEPCONTCOUNT	Total number of contention generating requests that resulted in GRS queuing a waiting element
104	(68)	SIGNED	8	ISGYQUAAUS_ESTEPCONTTIME	Total time of contention
112	(70)	CHARACTER	8		
120	(78)	CHARACTER	16	ISGYQUAAUS_ESTEPCONTTIMESQ	Sum of the squares of the individual contention times
136	(88)	CHARACTER	48	ISGYQUAAUS_ENQSYSTEMSTATS(0)	Statistics for requests that generated SYSTEM scope ENQs from this address space
136	(88)	SIGNED	8	ISGYQUAAUS_ESYSTEMTOTALCOUNT	

Table 1073. Structure ISGYQUAAUS (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
					Total number of requests that resulted in GRS queuing an element (contention and non-contention cases)
144	(90)	SIGNED	8	ISGYQUAAUS_ESYSTEMCONTCOUNT	
					Total number of contention generating requests that resulted in GRS queuing a waiting element
152	(98)	SIGNED	8	ISGYQUAAUS_ESYSTEMCONTTIME	Total time of contention
160	(A0)	CHARACTER	8		
168	(A8)	CHARACTER	16	ISGYQUAAUS_ESYSTEMCONTTIMESQ	
					Sum of the squares of the individual contention times
184	(B8)	CHARACTER	48	ISGYQUAAUS_ENQSYSTEMSSTATS(0)	
					Statistics for requests that generated SYSTEMS scope ENQs from this address space
184	(B8)	SIGNED	8	ISGYQUAAUS_ESYSTEMSTOTALCOUNT	
					Total number of requests that resulted in GRS queuing an element (contention and non-contention cases)
192	(C0)	SIGNED	8	ISGYQUAAUS_ESYSTEMSCONTCOUNT	
					Total number of contention generating requests that resulted in GRS queuing a waiting element
200	(C8)	SIGNED	8	ISGYQUAAUS_ESYSTEMSCONTTIME	
					Total time of contention
208	(D0)	CHARACTER	8		
216	(D8)	CHARACTER	16	ISGYQUAAUS_ESYSTEMSCONTTIMESQ	
					Sum of the squares of the individual contention times
232	(E8)	CHARACTER	64	ISGYQUAAUS_QSCANSTATS(0)	
					Statistics for Qscan requests (QSCAN and ISGQUERY REQINFO=QSCAN) issued from this address space
232	(E8)	SIGNED	8	ISGYQUAAUS_QTOTALCOUNT	Count of requests including (START and RESUME, but not QUITs
240	(F0)	SIGNED	8	ISGYQUAAUS_QSPECCOUNT	Count of requests that are specific. This includes requests with a specific QNAME and RNAME or ISGQUERY specifying a search by EnqToken
248	(F8)	CHARACTER	16	ISGYQUAAUS_QRESCOUNTSQ	Sum of the squares of number of resources returned.
264	(108)	SIGNED	8	ISGYQUAAUS_QRESCOUNT	Sum of all resources returned by QScans.
272	(110)	SIGNED	8	ISGYQUAAUS_QTIME	Sum of request times (in TOD- format) for QScan requests
280	(118)	CHARACTER	16	ISGYQUAAUS_QTIMESQ	Sum of the squares of request times for QScan requests
296	(128)	CHARACTER	32		Reserved for future use
296	(128)	X'148'	0	ISGYQUAAUSV1_KLEN	"328"
296	(128)	X'1'	0	ISGYQUAAUS_KMAXVERSION	"1"
296	(128)	X'1'	0	ISGYQUAAUS_KVERSION1	"1"
296	(128)	X'148'	0	ISGYQUAAUS_LEN	"*-ISGYQUAAUS"

Table 1074. Cross Reference for ISGYQUAC

Name	Offset	Hex Tag
ISGYQUAAHDR	0	
ISGYQUAAHDR_KHBB7709	51	1
ISGYQUAAHDR_KHBB7780	51	2
ISGYQUAAHDR_KID_0T03	51	E2C7E8
ISGYQUAAHDR_KID_4T07	51	E4C1C1
ISGYQUAAHDR_KMAXVERSION	51	2
ISGYQUAAHDR_KREQINFO_ENQSTATS	51	2
ISGYQUAAHDR_KREQINFO_LATCHECA	51	3
ISGYQUAAHDR_KREQINFO_QSCAN	51	1
ISGYQUAAHDR_KVERSION1	51	1
ISGYQUAAHDR_KVERSION2	51	2
ISGYQUAAHDR_LEN	51	58
ISGYQUAAHDRFIRSTRECORD	10	
ISGYQUAAHDRFIRSTRECORD31	14	
ISGYQUAAHDRID	0	
ISGYQUAAHDRMAX_KLEN	51	58
ISGYQUAAHDRNUMRECORDS	C	
ISGYQUAAHDRREQINFO	A	
ISGYQUAAHDRTOTALLEN	18	
ISGYQUAAHDRTOTALLEN31	1C	
ISGYQUAAHDRUS	0	
ISGYQUAAHDRUS_KHBB7780	50	1
ISGYQUAAHDRUS_KID_0T03	50	E2C7E8
ISGYQUAAHDRUS_KID_4T07	50	E4C1C1
ISGYQUAAHDRUS_KMAXVERSION	50	1
ISGYQUAAHDRUS_KREQINFO_USAGESTATS	50	4
ISGYQUAAHDRUS_KVERSION1	50	1
ISGYQUAAHDRUS_LEN	50	60
ISGYQUAAHDRUSENDTIME	50	
ISGYQUAAHDRUSFIRSTASRECORD	10	
ISGYQUAAHDRUSFIRSTASRECORD31	14	
ISGYQUAAHDRUSID	0	
ISGYQUAAHDRUSMAX_KLEN	50	60
ISGYQUAAHDRUSNUMASRECORDS	C	
ISGYQUAAHDRUSREQINFO	A	
ISGYQUAAHDRUSSTARTTIME	40	
ISGYQUAAHDRUSTERMINATEDSPACESRECORD	20	
ISGYQUAAHDRUSTERMINATEDSPACESRECORD31	24	
ISGYQUAAHDRUSTOTALLEN	18	

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAAHDRUSTOTALLEN31	1C	
ISGYQUAAHDRUSVERSION	8	
ISGYQUAAHDRUSV1	0	
ISGYQUAAHDRUSV1_KLEN	50	60
ISGYQUAAHDRVERSION	8	
ISGYQUAAHDRV1	0	
ISGYQUAAHDRV1_KLEN	51	28
ISGYQUAAHDRV2	28	
ISGYQUAAHDRV2_KLEN	51	58
ISGYQUAAHDRV2_KPARTIALLEN	51	30
ISGYQUAAHDRV2ENDTIME	40	
ISGYQUAAHDRV2FLAGS1	50	
ISGYQUAAHDRV2LASTRECORD	28	
ISGYQUAAHDRV2LASTRECORD31	2C	
ISGYQUAAHDRV2STARTTIME	30	
ISGYQUAAHDRV2WAITER	50	40
ISGYQUAALD	0	
ISGYQUAALD_KMAXVERSION	60	1
ISGYQUAALD_KVERSION1	60	1
ISGYQUAALD_LEN	60	90
ISGYQUAALDBLOCKERLRD	20	
ISGYQUAALDBLOCKERLRD31	24	
ISGYQUAALDCASID	38	
ISGYQUAALDCJOBNAME	50	
ISGYQUAALDDATANOTAVAIL	2	40
ISGYQUAALDDIAG1	40	
ISGYQUAALDDIAG2	44	
ISGYQUAALDFLAGS1	2	
ISGYQUAALDLATCHID	30	
ISGYQUAALDLATCHIDLEN	2C	
ISGYQUAALDLATCHIDVALID	2	80
ISGYQUAALDLATCHIDVERSION	2E	
ISGYQUAALDLATCHID31	34	
ISGYQUAALDLATCHNUM	28	
ISGYQUAALDLATCHSETNAME	60	
ISGYQUAALDLATCHSETTOKEN	58	
ISGYQUAALDMAX_KLEN	60	90
ISGYQUAALDNEXT	8	
ISGYQUAALDNEXT31	C	



Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAALDNUMBLOCKERS	40	
ISGYQUAALDNUMWAITERS	44	
ISGYQUAALDPREV	10	
ISGYQUAALDPREV31	14	
ISGYQUAALDRETURNEDLIDPSLEN	3A	
ISGYQUAALDVERSION	0	
ISGYQUAALDV1	0	
ISGYQUAALDV1_KLEN	60	90
ISGYQUAALDWAITERLRD	18	
ISGYQUAALDWAITERLRD31	1C	
ISGYQUAALRD	0	
ISGYQUAALRD_KMAXVERSION	40	1
ISGYQUAALRD_KVERSION1	40	1
ISGYQUAALRD_LEN	40	48
ISGYQUAALRDASID	20	
ISGYQUAALRDEXCLUSIVE	2	80
ISGYQUAALRDFLAGS1	2	
ISGYQUAALRDJOBNAME	18	
ISGYQUAALRDLATCHTOKEN	40	
ISGYQUAALRDMAX_KLEN	40	48
ISGYQUAALRDNEXT	8	
ISGYQUAALRDNEXT31	C	
ISGYQUAALRDOWNTOD	28	
ISGYQUAALRDPREV	10	
ISGYQUAALRDPREV31	14	
ISGYQUAALRDRESUMEDTOD	38	
ISGYQUAALRDTASKMODE	2	40
ISGYQUAALRDVERSION	0	
ISGYQUAALRDV1	0	
ISGYQUAALRDV1_KLEN	40	48
ISGYQUAALRDWAITREQTOD	30	
ISGYQUAALRDWORKUNIT@	24	
ISGYQUAARQ	0	
ISGYQUAARQ_KHBB7709	38	1
ISGYQUAARQ_KMAXVERSION	38	1
ISGYQUAARQ_KVERSION1	38	1
ISGYQUAARQ_LEN	38	40
ISGYQUAARQCONTROL	2	80
ISGYQUAARQENQTOKEN	18	

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAARQFLAGS1	2	
ISGYQUAARQFLAGS2	3	
ISGYQUAARQMATU	2	4
ISGYQUAARQMAX_KLEN	38	40
ISGYQUAARQMISC64VALID	2	1
ISGYQUAARQNEXT	8	
ISGYQUAARQNEXT31	C	
ISGYQUAARQOWNER	2	8
ISGYQUAARQPOSTED	2	2
ISGYQUAARQRESERVE	2	40
ISGYQUAARQRESERVECONVERTED	2	20
ISGYQUAARQRQX	10	
ISGYQUAARQRQXVALID	3	80
ISGYQUAARQRQX31	14	
ISGYQUAARQSYNCHRES	2	10
ISGYQUAARQTCB	4	
ISGYQUAARQVERSION	0	
ISGYQUAARQV1	0	
ISGYQUAARQV1_KLEN	38	40
ISGYQUAARQX	0	
ISGYQUAARQX_KHBB7709	78	1
ISGYQUAARQX_KHBB7740	78	2
ISGYQUAARQX_KMAXVERSION	78	2
ISGYQUAARQX_KVERSION1	78	1
ISGYQUAARQX_KVERSION2	78	2
ISGYQUAARQX_LEN	78	88
ISGYQUAARQXALTSEREXTENDED	3	20
ISGYQUAARQXASID	6	
ISGYQUAARQXAUTHORIZED	3	40
ISGYQUAARQXBATCHCHANGED	2	40
ISGYQUAARQXDEVICENUM	40	
ISGYQUAARQXECB	38	
ISGYQUAARQXECBREQUEST	3	8
ISGYQUAARQXFLAGS1	2	
ISGYQUAARQXFLAGS2	3	
ISGYQUAARQXJOBNAME	20	
ISGYQUAARQXMASID	34	
ISGYQUAARQXMATCHINGTASK	3	10
ISGYQUAARQXMAX_KLEN	78	88

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAARQXMTCB	30	
ISGYQUAARQXMUSTCOMPLETE	3	80
ISGYQUAARQXNQXITCHANGED	2	80
ISGYQUAARQXORIGQNAME	48	
ISGYQUAARQXORIGQNAMEVALID	2	10
ISGYQUAARQXORIGRNAME	50	
ISGYQUAARQXORIGRNAMELEN	5C	
ISGYQUAARQXORIGRNAMEVALID	2	8
ISGYQUAARQXORIGRNAME31	54	
ISGYQUAARQXORIGSCOPE	5D	
ISGYQUAARQXORIGSCOPEVALID	2	2
ISGYQUAARQXORIGUCB@	58	
ISGYQUAARQXORIGUCB@VALID	2	4
ISGYQUAARQXREQUESTERDATA	6	
ISGYQUAARQXRNLCHANGED	2	20
ISGYQUAARQXSERVICEASID	36	
ISGYQUAARQXSERVICEASIDVALID	2	1
ISGYQUAARQXSTOKEN	8	
ISGYQUAARQXSVRB	38	
ISGYQUAARQXSYSNAME	28	
ISGYQUAARQXTTOKEN	10	
ISGYQUAARQXUCB	3C	
ISGYQUAARQXUSERDATA	60	
ISGYQUAARQXUSERDATALEN	5E	
ISGYQUAARQXUSERDATAOMITTED	3	2
ISGYQUAARQXUSERDATAVALID	3	4
ISGYQUAARQXUSERDATA31	64	
ISGYQUAARQXVERSION	0	
ISGYQUAARQXV1	0	
ISGYQUAARQXV1_KLEN	78	68
ISGYQUAARQXV2	68	
ISGYQUAARQXV2_KLEN	78	88
ISGYQUAARQXV2_KPARTIALLEN	78	20
ISGYQUAARQXV2ENQTIME	68	
ISGYQUAARQX4CHUCB	44	
ISGYQUAARS	0	
ISGYQUAARS_KHBB7709	4C	1
ISGYQUAARS_KHBB7740	4C	2
ISGYQUAARS_KMAXVERSION	4C	2

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAARS_KVERSION1	4C	1
ISGYQUAARS_KVERSION2	4C	2
ISGYQUAARS_LEN	4C	50
ISGYQUAARSFIRSTRQ	10	
ISGYQUAARSFIRSTRQ31	14	
ISGYQUAARSFLAGS1	2	
ISGYQUAARSMAX_KLEN	4C	50
ISGYQUAARSNEXT	8	
ISGYQUAARSNEXT31	C	
ISGYQUAARSNUMEUSERS	3C	
ISGYQUAARSNUMWAITERS	34	
ISGYQUAARSNUMOWNERS	30	
ISGYQUAARSNUMRQ	28	
ISGYQUAARSNUMSUSERS	40	
ISGYQUAARSNUMSWAITERS	38	
ISGYQUAARSQNAME	20	
ISGYQUAARSRNAME	18	
ISGYQUAARSRNAMELEN	44	
ISGYQUAARSRNAME31	1C	
ISGYQUAARSRQSOMITTED	2	80
ISGYQUAARSRSX	48	
ISGYQUAARSRSXVALID	2	40
ISGYQUAARSRSX31	4C	
ISGYQUAARSSCOPE	46	
ISGYQUAARSTOTALRQ	2C	
ISGYQUAARSVERSION	0	
ISGYQUAARSV1	0	
ISGYQUAARSV1_KLEN	4C	50
ISGYQUAARSX	0	
ISGYQUAARSX_KHBB7740	24	1
ISGYQUAARSX_KMAXVERSION	24	1
ISGYQUAARSX_KVERSION1	24	1
ISGYQUAARSX_LEN	24	30
ISGYQUAARSXFLAGS1	2	
ISGYQUAARSXMAX_KLEN	24	30
ISGYQUAARSXRSTOKEN	4	
ISGYQUAARSXRSTOKENVALID	2	80
ISGYQUAARSXVERSION	0	
ISGYQUAARSXV1	0	

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAARSXV1_KLEN	24	30
ISGYQUAASP	0	
ISGYQUAASP_KHBB7730	C	1
ISGYQUAASP_KMAXVERSION	C	1
ISGYQUAASP_KVERSION1	C	1
ISGYQUAASP_LEN	C	10
ISGYQUAASPCURRENQCOUNT	4	
ISGYQUAASPENQMAX	C	
ISGYQUAASPMAX_KLEN	C	10
ISGYQUAASPPEAKENQCOUNT	8	
ISGYQUAASPVERSION	0	
ISGYQUAASPV1	0	
ISGYQUAASPV1_KLEN	C	10
ISGYQUAASYS	0	
ISGYQUAASYS_KHBB7730	24	1
ISGYQUAASYS_KMAXVERSION	24	1
ISGYQUAASYS_KVERSION1	24	1
ISGYQUAASYS_LEN	24	28
ISGYQUAASYSAUTHORIZED	2	80
ISGYQUAASYSENQMAX	20	
ISGYQUAASYSFLAGS1	2	
ISGYQUAASYSMAX_KLEN	24	28
ISGYQUAASYSNEXT	8	
ISGYQUAASYSNEXT31	C	
ISGYQUAASYSPEAKENQASID	1C	
ISGYQUAASYSPEAKENQCOUNT	18	
ISGYQUAASYSPEAKENQDATA	18	
ISGYQUAASYSSP	10	
ISGYQUAASYSSP31	14	
ISGYQUAASYSV1	0	
ISGYQUAASYSV1_KLEN	24	28
ISGYQUAAUS	0	
ISGYQUAAUS_ASID	2	
ISGYQUAAUS_ENQSTEPSTATS	58	
ISGYQUAAUS_ENQSYSTEMSSTATS	B8	
ISGYQUAAUS_ENQSYSTEMSTATS	88	
ISGYQUAAUS_ESTEPCONTCOUNT	60	
ISGYQUAAUS_ESTEPCONTTIME	68	

Table 1074. Cross Reference for ISGYQUAC (continued)

Name	Offset	Hex Tag
ISGYQUAAUS_ESTEPCONTTIMESQ	78	
ISGYQUAAUS_ESTEPTOTALCOUNT	58	
ISGYQUAAUS_ESYSTEMCONTCOUNT	90	
ISGYQUAAUS_ESYSTEMCONTTIME	98	
ISGYQUAAUS_ESYSTEMCONTTIMESQ	A8	
ISGYQUAAUS_ESYSTEMSCONTCOUNT	C0	
ISGYQUAAUS_ESYSTEMSCONTTIME	C8	
ISGYQUAAUS_ESYSTEMSCONTTIMESQ	D8	
ISGYQUAAUS_ESYSTEMSTOTALCOUNT	B8	
ISGYQUAAUS_ESYSTEMTOTALCOUNT	88	
ISGYQUAAUS_KMAXVERSION	128	1
ISGYQUAAUS_KVERSION1	128	1
ISGYQUAAUS_LATCHCREATORCONTSTATS	18	
ISGYQUAAUS_LATCHREQUESTERCONTSTATS	38	
ISGYQUAAUS_LC_CONTCOUNT	18	
ISGYQUAAUS_LC_CONTTIME	20	
ISGYQUAAUS_LC_CONTTIMESQ	28	
ISGYQUAAUS_LEN	128	148
ISGYQUAAUS_LR_CONTCOUNT	38	
ISGYQUAAUS_LR_CONTTIME	40	
ISGYQUAAUS_LR_CONTTIMESQ	48	
ISGYQUAAUS_NEXT	8	
ISGYQUAAUS_NEXT31	C	
ISGYQUAAUS_QRESCOUNT	108	
ISGYQUAAUS_QRESCOUNTSQ	F8	
ISGYQUAAUS_QSCANSTATS	E8	
ISGYQUAAUS_QSPECCOUNT	F0	
ISGYQUAAUS_QTIME	110	
ISGYQUAAUS_QTIMESQ	118	
ISGYQUAAUS_QTOTALCOUNT	E8	
ISGYQUAAUS_STOKEN	10	
ISGYQUAAUS_VERSION	0	
ISGYQUAAUSERDATA_KINITIALLEN	C	20
ISGYQUAAUSV1	0	
ISGYQUAAUSV1_KLEN	128	148

# ISGYREPL information

## ISGYREPL programming interface information

ISGYREPL is a programming interface.

## ISGYREPL heading information

<b>Common name:</b>	RNL Exit Parameter List																
<b>Macro ID:</b>	ISGYREPL																
<b>DSECT name:</b>	REPL																
<b>Owning component:</b>	Global Resource Serialization (SCSDS)																
<b>Eye-catcher ID:</b>	REPL Offset: 0 Length: 4																
<b>Storage attributes:</b>	Subpool: 229 Key: 0 Residency: Above the 16M line																
<b>Size:</b>	LENGTH(REPL) REPL -- X'0048' bytes																
<b>Created by:</b>	ISGGRX																
<b>Pointed to by:</b>	R1 points to the REPL on entry to the exit routine																
<b>Serialization:</b>	N/A																
<b>Function:</b>	<p>The RNL Exit Parameter List provides an installation provided exit (installed at the ISGGNQXT exit point) the ability to modify attributes of an ENQ, RESERVE or DEQ request.</p> <p>The exit routine may change any of the following values in the REPL. Appropriate changes will be made to the request.</p> <table><tr><td>Value</td><td>Flag</td></tr><tr><td colspan="2">-----</td></tr><tr><td>Repl_QName</td><td>Repl_RF1_ChangeQName</td></tr><tr><td>Repl_RName, Repl_RnameLen</td><td>Repl_RF1_ChangeRName (1)</td></tr><tr><td>Repl_Scope</td><td>Repl_RF1_ChangeScope</td></tr><tr><td>Repl_Ucb@</td><td>Repl_RF1_ChangeUCB@</td></tr><tr><td colspan="2">(to bypass RNL processing) Repl_RF1_BypassRNLs</td></tr><tr><td colspan="2">(1) When changing the RName, do not alter Repl_RName alter the storage specified by the address. The routine calling the exit provides enough storage to save a 255 byte RName at that address.</td></tr></table>	Value	Flag	-----		Repl_QName	Repl_RF1_ChangeQName	Repl_RName, Repl_RnameLen	Repl_RF1_ChangeRName (1)	Repl_Scope	Repl_RF1_ChangeScope	Repl_Ucb@	Repl_RF1_ChangeUCB@	(to bypass RNL processing) Repl_RF1_BypassRNLs		(1) When changing the RName, do not alter Repl_RName alter the storage specified by the address. The routine calling the exit provides enough storage to save a 255 byte RName at that address.	
Value	Flag																
-----																	
Repl_QName	Repl_RF1_ChangeQName																
Repl_RName, Repl_RnameLen	Repl_RF1_ChangeRName (1)																
Repl_Scope	Repl_RF1_ChangeScope																
Repl_Ucb@	Repl_RF1_ChangeUCB@																
(to bypass RNL processing) Repl_RF1_BypassRNLs																	
(1) When changing the RName, do not alter Repl_RName alter the storage specified by the address. The routine calling the exit provides enough storage to save a 255 byte RName at that address.																	

## ISGYREPL mapping

Table 1075. Structure REPL

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	REPL	
0	(0)	CHARACTER	4	REPL_ID	Eyecatcher
4	(4)	CHARACTER	8	REPL_QNAME	Request QNAME

Table 1075. Structure REPL (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
12	(C)	ADDRESS	4	REPL_RNAME@	Pointer to request RNAME
16	(10)	BITSTRING	1	REPL_RNAMELEN	Length of request RNAME
17	(11)	BITSTRING	1	REPL_SCOPE	Request scope, see Repl_kScope values
18	(12)	CHARACTER	2		Reserved
20	(14)	ADDRESS	4	REPL_UCB@	Pointer to UCB (set for RESERVE or DEQ with UCB requests)
24	(18)	CHARACTER	6	REPL_VOLSER	VOLSER of RESERVE UCB
30	(1E)	CHARACTER	2		Reserved
32	(20)	ADDRESS	4	REPL_ASCB@	Pointer to requester's ASCB
36	(24)	ADDRESS	4	REPL_TCB@	Pointer to requester's TCB or directed TCB if TCB= was specified
40	(28)	CHARACTER	8	REPL_JOBNAME	Requester's Jobname
48	(30)	CHARACTER	8	REPL_SYSNAME	Requester's Sysname
56	(38)	CHARACTER	4	REPL_STATEFLAGS(0)	State flags
56	(38)	BITSTRING	1	REPL_STATEFLAGS1(0)	First byte of state flags
		1... ....		REPL_SF1_ENQ	"X'80'" When 1, request is ENQ/ RESERVE, when 0, request is DEQ
		.1.. ....		REPL_SF1_RNLQNO	"X'40'" RNL=NO was specified on the request: a change to the scope by the exit will not be honored
		..1. ....		REPL_SF1_AUTHORIZED	"X'20'" Caller is authorized
		...1 ....		REPL_SF1_RETEQTEST	"X'10'" Request is RET=TEST (for ENQ requests)
		.... 1...		REPL_SF1_SHARE	"X'08'" For ENQ/RESERVE requests, when 1 request is for shared access, when 0, request is for exclusive access
57	(39)	CHARACTER	3		Reserved
60	(3C)	CHARACTER	4	REPL_REQUESTFLAGS(0)	Request flags
60	(3C)	BITSTRING	1	REPL_FLAGS1(0)	First byte of state flags
		1... ....		REPL_RF1_BYPASSRNL	"X'80'" When 1, request that RNL processing is to be bypassed
		.1.. ....		REPL_RF1_CHANGEQNAME	"X'40'" When 1, request that the QNAME be changed
		..1. ....		REPL_RF1_CHANGERNAME	"X'20'" When 1, request that the RNAME be changed
		...1 ....		REPL_RF1_CHANGESCOPE	"X'10'" When 1, request that the Scope be changed
		.... 1...		REPL_RF1_CHANGEUCB@	"X'08'" When 1, request that the UCB address be changed
61	(3D)	CHARACTER	3		Reserved
64	(40)	CHARACTER	8		Reserved
72	(48)	CHARACTER	1	REPL_END(0)	End of REPL
REPL Constants					
72	(48)	X'C5D7D3'	0	REPL_KID	"C'REPL'" Used to identify control block
72	(48)	X'1'	0	REPL_KSCOPESYSTEM	"1" Scope=System
72	(48)	X'2'	0	REPL_KSCOPESYSTEMS	"2" Scope=Systems
72	(48)	X'48'	0	REPL_LEN	"*-REPL"



Table 1076. Cross Reference for ISGYREPL

Name	Offset	Hex Tag
REPL	0	
REPL_ASCB@	20	
REPL_END	48	
REPL_FLAGS1	3C	
REPL_ID	0	
REPL_JOBNAME	28	
REPL_KID	48	C5D7D3
REPL_KSCOPESYSTEM	48	1
REPL_KSCOPESYSTEMS	48	2
REPL_LEN	48	48
REPL_QNAME	4	
REPL_REQUESTFLAGS	3C	
REPL_RF1_BYPASSRNLS	3C	80
REPL_RF1_CHANGEQNAME	3C	40
REPL_RF1_CHANGENAME	3C	20
REPL_RF1_CHANGESCOPE	3C	10
REPL_RF1_CHANGEUCB@	3C	8
REPL_RNAME@	C	
REPL_RNAMELEN	10	
REPL_SCOPE	11	
REPL_SF1_AUTHORIZED	38	20
REPL_SF1_ENQ	38	80
REPL_SF1_RETEQTEST	38	10
REPL_SF1_RNLEQNO	38	40
REPL_SF1_SHARE	38	8
REPL_STATEFLAGS	38	
REPL_STATEFLAGS1	38	
REPL_SYSNAME	30	
REPL_TCB@	24	
REPL_UCB@	14	
REPL_VOLSER	18	



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